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ABSTRACT

Although the Iroquois are one of the most thoroughly studied Indian peoples of this continent, many important aspects of their history and culture remain unexplained. For the past 20 years the Conference on Iroquois Research has reported on current research and discussed needs and opportunities for future research. Twenty papers are included in this document. These deal with such subjects as aspects of recent change on the Allegany Reservation, early years of the Seneca nation, etymology of the word "Iroquois," the Onondaga Bowl Game, and acculturation on the Tyendinaga Reserve in Canada. Another paper suggests the Huron and Iroquois may not have had as strong a matrilocal rule of residence in the 17th century as previously believed. Interest by the Tuscaroras to revive their language is also discussed. An ethnohistorical study of Hochelaga made in connection with the restudy of the Dawson site is given, as well as a discussion of some hitherto unreported pottery types in Eastern Ontario and Southern Quebec. Five papers report on archaeological work at the Kelso, Howlett Hill, Garoga, Simmons, and Cornish Sites. Three reports are concerned with other aspects of analysis and interpretation of archaeological data; these deal with pottery analysis in terms of "attributes" rather than types, pottery analysis as a source for inferences on social relationships and organizations among the Straits of Mackinac peoples, and the use of ethnographic data to interpret archaeological data from the Mohr site. The final paper deals with the Anthropology Study Curriculum Project. History and purposes of the Conference on Iroquois Research are also given. (Author/DS)

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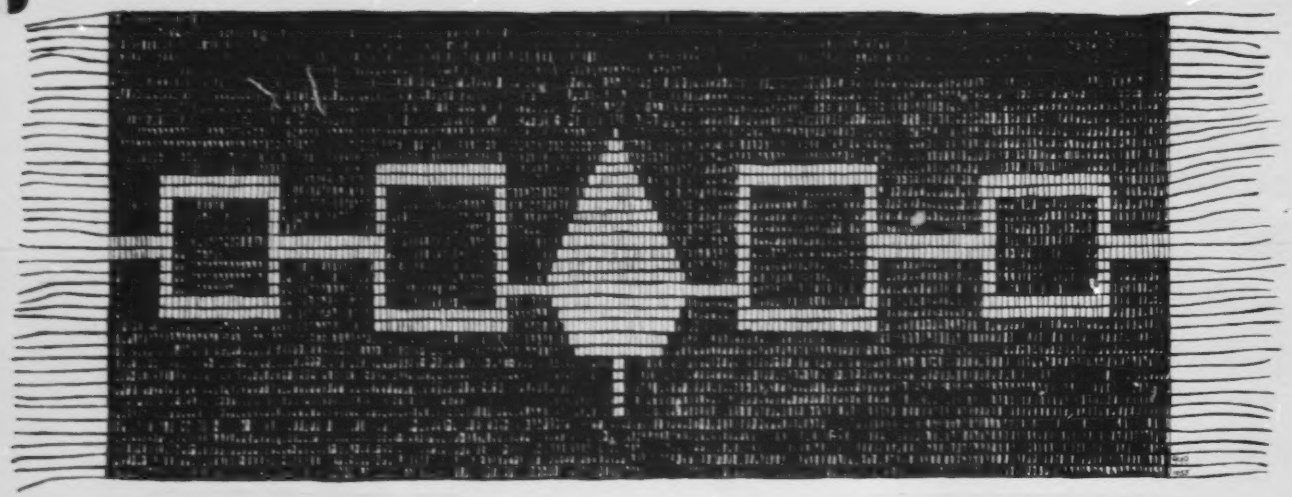
IROQUOIS CULTURE, HISTORY, AND PREHISTORY

PROCEEDINGS OF THE 1965 CONFERENCE ON IROQUOIS RESEARCH

Edited by Elisabeth Tooker



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Foreword

For the past 20 years, the Conference on Iroquois Research has provided an opportunity for students of Iroquois culture to get together during one fall weekend to report on current research and discuss needs and opportunities for future research. Although the Iroquois are one of the most thoroughly studied Indian peoples of this continent, many important aspects of their history and culture remain unexplored. The work of the Conferences, including this one, has been addressed to these aspects.

The first Iroquois Conference—as the Conference on Iroquois Research is familiarly called—was held in 1945. In that year, a group of those interested in the Iroquois, led by Merle H. Deardorff, Charles E. Congdon, and William N. Fenton met at Red House in the Allegany State Park to discuss, among other things, the future course of Iroquoian studies. So successful was this meeting that in the 3 succeeding years conferences were held each autumn at Red House, firmly establishing the tradition of what the Senecas on the nearby Allegany Reservation came to call the "anthropologists' Six Nations Meeting." Just as the Indians come every fall to reaffirm their belief in their religion and discuss matters of common interest at their "Six Nations Meetings," so also have the anthropologists come to the Iroquois Conferences to reaffirm their belief in the importance of Iroquoian studies and to discuss matters of common interest.

If one reviews the "traditions" of the Iroquois Conference, it becomes apparent that only two are actually maintained. First, sessions are devoted primarily to discussion about the Iroquois. Second, the Conference has no formal organization; there is no president, no president-elect, no secretary-treasurer. And just as there are no officers, there are also no real "members"—the Conference is open to those working in the field in any given year. After the date and the place for the Conference have been decided (admittedly by those self-appointed to the task), announcements—and the number of these has varied from year to year—are mailed to persons who might be interested. For the last Conference, the list was severely pruned, probably too severely. Announcements were sent to about 70 individuals. That 40 attended attests to the sincerity of the Iroquoianists' interest in talking with their colleagues.

As this talk is concerned not only with current research, but perhaps more importantly, with research that is only a "glimmer in an investigator's eye," much of the value of the Iroquois Conference cannot be communicated by the printed word. But much *can* be communicated in such manner, and this present set of proceedings indicates the nature of the Conference as well as the range and quality of current work in Iroquoian studies.

There was no intention, when the 1965 Conference was planned, to publish a record of proceedings. At the time, in fact, there was some question as to whether or not such publication was possible. By the end of this Conference, however, it was apparent that a proceedings volume was feasible, and each participant was asked to submit—if he or she so desired—the paper as it had been presented, or a revised version. No rigid format was imposed. Consequently the papers that make up these proceedings are of varying lengths, and no attempt has been made to equalize any differences. In the course of rewriting, a few titles were also changed. Included in this volume also is a paper by Bruce Trigger who, due to illness, was unable to attend the Conference.

The arrangement of papers in this volume is topical rather than in their order of presentation at the Conference. These papers are also arranged in a roughly reverse chronological order in accordance with Fenton's idea of "upstreaming"—proceeding from the present to the past.

The first two papers, one by William N. Fenton and another by George Abrams, describe two aspects of recent change on the Allegany Reservation—change of particular interest as it was forced on the Senecas by construction of the Kinzua Dam and the imminent flooding of half of their Reservation.

In the third paper, Thomas S. Abler describes the early years of the Seneca nation, the political entity composed of the Allegany and Cattaraugus Senecas.

The next paper is a discussion by Barbara Graymont of the current interest on the part of the Tuscaroras to revive their native language.

C. H. Torok's paper is concerned with the little-known acculturation on the Tyendinga Reserve in Canada. Harold Blau, in his paper, discusses the Onondaga Bowl Game, with particular emphasis on a form of the game not described in great detail elsewhere in the literature.

In her paper, Cara E. Richards suggests that the Huron and Iroquois may not have had a strong matrilocal rule of residence in the 17th Century as previously had been widely believed. Gordon M. Day suggests that the commonly-accepted etymology of the word "Iroquois" may be incorrect and offers some alternative etymologies.

Bruce G. Trigger discusses his ethnohistorical study of Hochelaga made in connection with the recent restudy of the Dawson Site. James F. Pendergast, who has been the "prime mover" behind this restudy of the Dawson Site, discusses some hitherto unreported pottery types in eastern Ontario and southern Quebec.

The next five papers are reports given at a session devoted to recent archaeological work on the Iroquois settlement pattern. The first of these contributions, by William A. Ritchie, summarizes work on the Kelso Site, the earliest of the sites discussed. Following are reports on the Howlett Hill Site by James A. Tuck; the Garoga Site, by Robert E. Funk; the Simmons Site, by Marian E. White; and the Cornish Site, by Charles F. Hayes III.

The next three reports are concerned with other aspects of the analysis and interpretation of archaeological data. J. V. Wright discusses the advantages and disadvantages of pottery analysis in terms of "attributes" rather than "types." Alan McPherron discusses how the analysis of pottery may provide information from which inferences may be made regarding social relationships and organizations among the peoples who inhabited the Straits of Mackinac. The use of ethnographic data to interpret archaeological data from the Mohr Site is the topic of Jacob Gruber's paper, while the final report is Hazel W. Hertzberg's description of the Anthropology Study Curriculum Project.

It seemed appropriate to compile for this volume a list of the previous Conferences on Iroquois Research, including their dates and locations, and a bibliography of the published proceedings and notices, and papers originally presented at these Conferences and later published in substantially the same form. This information is given in the Appendix. It should be noted that this Appendix does not include reports that were lengthened and revised extensively before being published.

Finally I would like to "return thanks"—as the Iroquois say—to the following individuals and institutions: William N. Fenton, who has kept the Iroquois Conference alive and who helped to plan the 1965 Conference; James A. Tuck, who suggested that the proceedings might be published; Temple University and Marcia Mirkin, secretary of the Department of Anthropology, for her secretarial and other assistance in preparing this volume and in organizing the Conference; and the New York State Museum and Science Service for publishing these proceedings. But perhaps most important are those who attended the Conference, both those who gave papers and those who did not. Without them, the Conference would not have been a success and the present volume would not have come into being.

Elisabeth Tooker
Temple University

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Introduction

There seems to be general agreement that the renaissance of Iroquois studies may be dated from the first Iroquois Conference at Allegany State Park, New York, in 1945.

The war had, of course, disrupted business in anthropology. But as would become apparent later, the war had done much more than that. For the first time officialdom came to realize that anthropology has a practical value. This was impressed on Washington when some obscure ethnologist's record of the geography and culture of a South Seas island was the only information available about the island at that time. Thus, the science acquired a new status. The whole world of anthropology—from the discovery of earliest man to inquiry into why Australian aborigines' sweat-glands work the way they do—all suddenly became potentially relevant to contemporary practical interests. This posed a very heady prospect to a hitherto rather poor and neglected profession.

At home, there was renewed interest in the Southwest. Those not seduced to foreign parts were drawn there in large numbers. The material on which professional reputations became grounded could be had out West by the shovelful, instead of by the thimbleful as in the old workings back East.

Iroquoia had been gone over for more than a century; it had, of course, never been entirely abandoned. But men such as Parker, Fenton, and Ritchie were pretty lonesome.

I recall talking at that time with Dr. Frank G. Speck, then the highly regarded head of the Department of Anthropology at the University of Pennsylvania, about the situation. He spoke of his difficulty in enlisting graduate students in Iroquois work. They felt that it had all been done and that if there were anything left, it would be hard to come by. Rewards were quicker and greater elsewhere. Although he had himself at one time been closely involved in Iroquois research (and later became one of the Conference's most effective supporters), he had shifted his attention. Even he had to make some concession to his customers' demands.

It was against this background that what was to become the Iroquois Conference was projected one Sunday morning by three of us on the way home from several days spent in going through the Kirkland collection in the Hamilton College Library. We decided to try to do something to revive interest in the Indians we knew best, starting by way of a small meeting to which interested persons would be invited. Charlie Congdon of Salamanca, as head of the Allegany State Park Commission, was in a position to provide perfect playing grounds. He made available the Park's administration building, a particularly appropriate place as the Park adjoins the Allegany Seneca Reservation. Bill Fenton commanded the indispensible professional respect necessary to warrant attention from those to be invited, a list of whom he later prepared.

While I'm sure the Conference cannot take sole credit for the Iroquois revival, I am just as sure it can claim at least partial responsibility. When I read the long list of names in the American Anthropological Association's "Guide to Graduate Departments of Anthropology," I recognize many as being in regular or occasional attendance at the Conference in years past. I also recall many names in museum and other professional fields not mentioned. When I consider how far Iroquois work (both here and in Canada) has come since 1945, I feel gratified at having been, for once in my life, identified in some way with a worthwhile project.

The successful Glens Falls meeting gave every assurance that the Conference will go on its unorthodox way, maintained by those who find stimulation for their common interest in its informal and unrehearsed (sometimes even alarming!) proceedings.

I hope so.

M. H. Deardorff
Warren, Pennsylvania

History and Purposes

OF THE CONFERENCE ON IROQUOIS RESEARCH

William N. Fenton

On the 20th anniversary of the Conference on Iroquois Research, which has met more or less regularly in October since 1945, it may be helpful to those who have come to it lately to summarize its history and point out its purpose. Two of the founders, Merle H. Deardorff and the writer, attended the vigesimal celebration in Glens Falls, while a third, Charles E. Congdon, stayed at home "on the back of the bed," as the old Iroquois say. In the beginning, we three had formed a Turtle's War Party and went on a raid to Hamilton College to read the Kirkland Papers, and to the Mohawk Valley to visit Father Thomas Grassmann at historic Caughnawaga, and somewhere on the path the idea occurred to us to have a party honoring Carl E. Guthe, the then new Director of the New York State Museum, and to hold it at the Allegany State Park Administration Building in Red House. Frank G. Speck, who was then alive and very active in ethnological work among the Six Nations, and I had been discussing the need to bring students of the Iroquois together; they represented the entire spectrum of anthropological and historical studies after World War II and would help us to see where we stood and what could be done. The first conference was such a success intellectually and socially that we kept on meeting yearly. A wide range of persons attended: scholars, students, and amateurs. At times the meetings grew too large and included fringe people. The history of these early conferences is in print, and most recently I summarized it, as of 1958, in the foreword to the *Symposium on Cherokee and Iroquois Culture* (Fenton and Gulick 1961: 3-8). Since then it has met more or less irregularly.

There have been but four full-scale conferences since 1959. That was the last time we met at Red House. Edmund Wilson attended, Merle Deardorff gave a memorable sketch of the Kinzua Dam controversy, and Annemarie Shimony read on Iroquois conservatism. After that there was a desire expressed to meet elsewhere. The Senecas at Allegany were in deep trouble with Congress over the Kinzua Dam and we Iroquoianists had not been particularly effective in helping them. Consequently, it seemed inappropriate to discuss cultural problems in their midst.

The next year I was on leave writing, and Floyd Lounsbury acted as host to a small 1-day working session of ethnologists and linguists at Yale. As I recall, Chafe, Shimony, Sturtevant, Tooker, White, Rouse, Mintz, and the writer attended.

For a number of years we were urged to come to Canada, and in response to an invitation from the President of McMaster University, Iroquoianists met at Hamilton under the most favorable auspices in 1961. Frank Vallee was our host. The occasion was the anniversary of Pauline Johnson, the Mohawk poetess. In 1962, because of the rising interest in ethnohistory and the contributions of Iroquoianists to its development, one session of the American Indian Ethnohistoric Conference which met in Albany was denominated the "Fifteenth Conference on Iroquois Research" and was devoted to hearing new voices in Iroquois studies: Blau, Funk, Gauss, and Diamond. Chief Corbett Sundown came down from Tonawanda and blessed the mask collection in the New York State Museum, burning tobacco and imploring the masks not to be unhappy and injure the curators. There was a field trip to an Iroquois site in the Mohawk valley and to Johnson Hall, followed by a dinner with an address by Milton Hamilton (1963), editor of the *Sir William Johnson Papers.*

There were no formal conferences during the next two years. In the fateful November of 1963, several Iroquoianists lunched together in San Francisco during the American Anthropological Association convention, and the year after we met for dinner in Detroit. Efforts to hold a full-scale conference at Lake George in 1964 had found a majority of Iroquoianists bound to other commitments. Elisabeth Tooker had undertaken the correspondence and continued as Program Chairman for the Glens Falls meeting, with the writer making local arrangements. We were supported by two volunteers from the Anthropology Club at Vassar, Constance Turnbull, and Lauree McMahon, who assisted with registration.

The range and diversity of the papers read at Glens Falls is surprising when one considers the irregularity of meetings and the absence from the program of some headliners of recent years. Several comments are in order. First,

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there is a genuine community of interest among Iroquoianists and they seem to regenerate themselves or produce fertile offspring with amazing vigor. Second, the Iroquois Conference has no formal organization and no regular members. The mailing list comprises active scholars, amateur or professional, who are interested in the Iroquois, who have published, or are engaged in research. Students are encouraged. Not a penny of foundation support has been solicited or paid for travel to these meetings. People come on their own, or they are sent by their institutions. Part of this interest arises from a real hunger for small academic meetings where everyone listens to all the papers, even those outside his specialty, where one can really talk with colleagues without keeping one eye on the academic slave market, and where one can hear the new voices. In contrast with the huge and bewildering conclaves of learned societies today, the Iroquois Conferences are definitely low key. Consequently, people feel relaxed because their reputations are not at stake. Informality extends to the program. We have a tradition of informal communications, or 'un-papers,' which allows the beginner to formulate some idea and the oldster to retread his science. Some of these sessions have produced interesting research leads to important discoveries. There was MacNeish's (1952) report on Iroquois pottery at Red House. Wallace came first, as Speck's student, and gave some of his earliest papers (Wallace 1958) on prophet movements. Under Lounsbury's aegis, Chafe (1960-61 and 1963) described the Seneca language. We could go on.

Our most famous tradition is the "Very Little Water Society" meeting, presided over by Merle Deardorff. An obvious parody on the Little Water Medicine Society of the Senecas, it fits the anthropological culture nicely, and it has a unique flare that belongs only to these meetings and to its birthplace at Red House.

The present offerings are made to the spirits of the humanities and the social sciences in the trust that they will be acceptable and helpful to all who read them.

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Program

of the

1965 Conference on Iroquois Research
held at
The Schine Queensbury Inn
Glens Falls, New York
October 15-17, 1965

Friday, October 15

Evening meeting: Elisabeth Tooker, Chairman

Elisabeth Tooker — Welcome
Hazel W. Hertzberg — The Anthropology Study Curriculum Project
James C. Gifford — The Pennsylvania Archaeologist
William N. Fenton — The Second Housing Revolution of the Seneca Nation
George Abrams — The Moving of the Fire of the Coldspring Longhouse

Saturday, October 16

Morning Session: William C. Sturtevant, Chairman

Alan McPherron — Interaction of Algonguian- and Iroquoian-Speaking Groups at the Straits of Mackinac, A.D. 1300
Cara E. Richards — Iroquois Residence Patterns in the Seventeenth Century
Barbara Graymount — The Iroquois During the American Revolution and Problems in the Study of the Tuscarora Language
Charles H. Torok — Acculturation on the Tyendinaga Reserve
Donald Lenig — Mohawk Materials Stolen from the Fort Plain Museum

Afternoon Session: William A. Ritchie, Chairman

William A. Ritchie — Iroquois Cultural Beginnings in Central and Eastern New York
James A. Tuck — Archaeological Work in Central New York
Robert Funk — Garoga: A Late Prehistoric Mohawk Valley Site
Marian E. White — Recent Archaeological Work in Western New York
Charles F. Hayes III — The Cornish Site
James F. Pendergast — Onondaga-Oneida Research in Eastern Ontario

Sunday, October 17

Morning Session: William N. Fenton, Chairman

Gordon M. Day — Etymology of the Name "Iroquois"
James V. Wright — Type and Attribute Analysis in Iroquois Archaeology
Thomas S. Abler — Seneca Nation Factionalism: The First Twenty Years
Harold Blau — The Bowl Game of the Iroquois
William C. Sturtevant — Announcement of the Catalog of Pre-1860 Illustrations of Indians of the Northeast
Jacob Gruber — A Preliminary Statement Concerning Excavations at the Mohr Site During the 1965 Summer Season

From Longhouse to Ranch-type House

THE SECOND HOUSING REVOLUTION OF THE SENECA NATION

William N. Fenton, New York State Museum and Science Service

A drive across New York State from Albany to Buffalo and then south 60 miles to Salamanca on the Allegheny River follows the central path through the 5 fire places of the symbolic Longhouse of the 5 tribes of the Iroquois League. The path enters the eastern doorway on the Mohawk River near the former sites of the People of the Flint. Near Utica, it passes Oneida, of the People of the Upright Stone. A great column of smoke rises yet at Syracuse, where the People on the Mountain, the Onondagas, kept the central fire. The path then makes a bee-line across the mucky lands where the Cayugas took their boats out, and, passing drumlins of the Great Hill People, the mighty Senecas, goes out the western doorway on the Genesee. Beyond there to the setting sun was the country of the Senecas, now western New York and parts of Pennsylvania and Ohio. This land of the Longhouse was named *Iroquoia* by the French and was called the "Six Nations Country" by the English.

Last winter I made such a journey from Albany to the banks of *?o-hi:yo?*, "the beautiful river," where I had commenced field work as a student of anthropology some 30 years ago. The trip reminded me of the words of the Medicine Song (*yeí?do:s*): "The houses of my grandchildren stretch in a long line." This "line of houses" has been the characteristic settlement pattern of the Senecas on the Allegany Reservation. This reservation extends 42 miles around the 'ox-bow,' from Vandalia, east of Salamanca, west and south to the Pennsylvania State line, and a half mile back on either side of the river. Cornplanter's Grant lies just south of State Line. Twelve miles further down river is the Kinzua narrows, 'Fish on spear,' now the site of a great earth dam erected to satisfy the people of Pennsylvania and to slake the thirsty boilers of Pittsburgh steel mills. When the gates are closed, the Kinzua Dam will back the waters of the Allegheny River to Coldspring, the hearth of Allegany Seneca ceremonies, flooding 9,000 acres of the best bottom lands, and dispossessing 130 Seneca families from their homes.

In compensation for the loss of their lands on the Allegany Reservation and the displacement of 130 families in the "take area" (the area needed for the reservoir), the Seneca Nation, numbering 4,000 persons—as the combined Allegany and Cattaraugus Reservations are known—has received $15,000,573. This sum was appropriated by the Congress under Public Law 88,533, signed by President Johnson on August 31, 1964, "to provide for the relocation, rehabilitation, social, and economic development of the members of the Seneca Nation." Broken down into categories under which the compensation may be budgeted and expended by the officers of the Nation, with the approval of the Secretary of the Interior, the act provides for $1,289,060 for "Direct Damages" (for land and improvements); $945,573 for "Indirect Damages" (for relocation expenses, loss of timber, wildlife, etc.); $387,023 for "Cemetery Relocation"; $250,000 for "Reimbursement of Kinzua Dam costs to the Seneca Nation" (legal and appraisal fees); $12,128,917 for "Rehabilitation" (relocation of housing, educational purposes, community buildings, economic development, etc.) It is this last amount, the $12 million for rehabilitation, which is earmarked for durable services and for programs to help the Seneca Nation. With this sum, the leaders and tribal members for the past year have been endeavoring to accomplish one of the most interesting social experiments of our time. It is an experiment in directed culture change. Since none of the capital is available for per capita distribution—something which has been the curse of all previous Indian "give-aways" and would only result in "three days of heavy fun"—the Senecas have a unique opportunity to program these funds for their individual and mutual cultural development.

When one considers that the money only became available to them in September, 4 months before the January 1, 1965 deadline imposed by the U.S. Army Engineers for the removal of families from the "take area," the achievement is a remarkable one. The Indians organized their own Seneca Nation Housing Enterprises, recruited and trained their own work crews, and established a purchasing system so that they could build two entirely new communities. One is called Jimersontown and is located near Salamanca, on the small amount of habitable land left to them above the 1365 foot elevation contour line.

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[1] The author has in preparation a book, "The People of the Longhouse," to be published by Farrar, Straus, and Giroux of New York. This article will be a chapter of that book.

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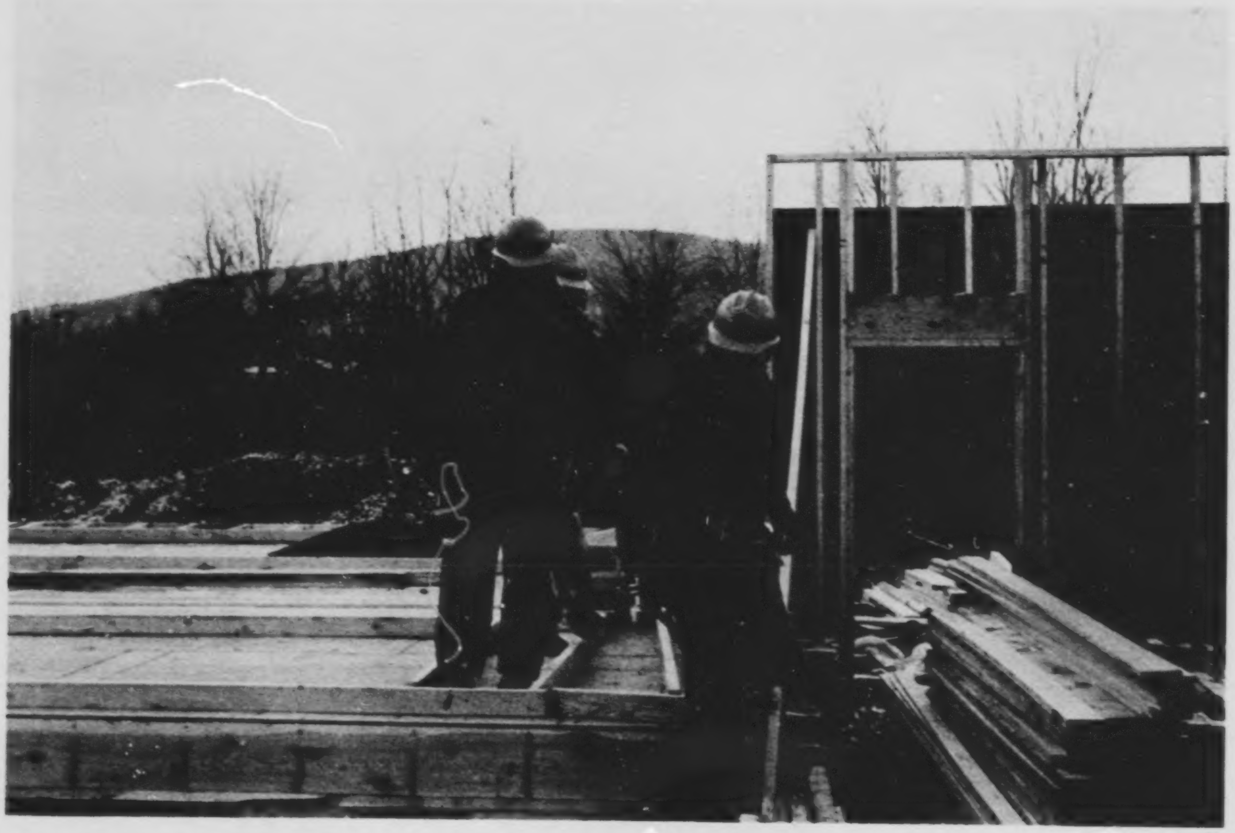
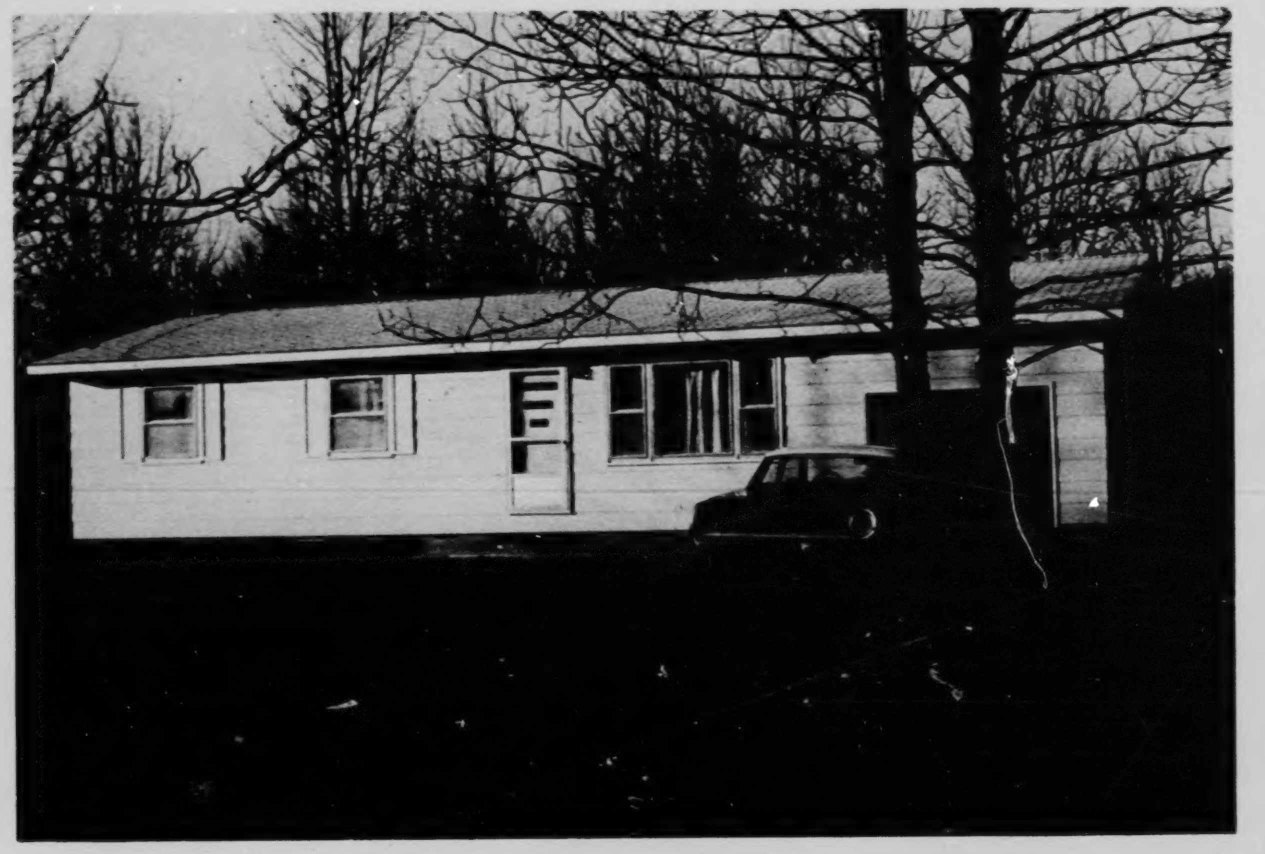


Both Indian and white carpenters worked together in framing the new home of the Clifford Crouses at Jimersontown, on the Allegany Reservation of the Seneca Nation. This residence was one of 102 which were constructed to accommodate those affected by the Kinzua Dam Project.



The new 3-bedroom home of Avery and Fidelia Jimerson, at Jimersontown. January 10, 1965.

The other, near Steamburg, is variously called "New Coldspring," or "Steamburg Relocation Center." By the end of 1964, 102 of the 113 houses authorized by the Council were under construction or were completed and nine families had moved in at Jimersontown. A total of 120 houses were then projected, and rental housing to accommodate those who did not own homes in the "take area" was planned for spring and summer construction.

It was this housing revolution being accomplished under the charismatic leadership of George Heron, Administrator of the Seneca Nation, that I wanted to see for myself. On the invitation of Mr. Heron, I made two brief field visits to the Senecas: the first in early December, 1964, and the second at the moon of Midwinter in January, 1965. The Senecas begin the new year on the 5th day of the new moon after the winter solstice (in 1965 it was January 7), for that is when the tribe used to return from the winter hunt to celebrate the Midwinter Festival, the Feast of Dreams. Thinking that the 1965 celebration might be the last such ceremony held at the Coldspring Longhouse where I had begun my studies of ceremonialism in 1933, I wished to attend the ceremonies once more as well as see the new housing. It may be appropriate to acknowledge that although Yale had sent me in 1933, this time I was invited to attend by the Senecas and at the expense of the Nation itself. Ethnology had come a long way.

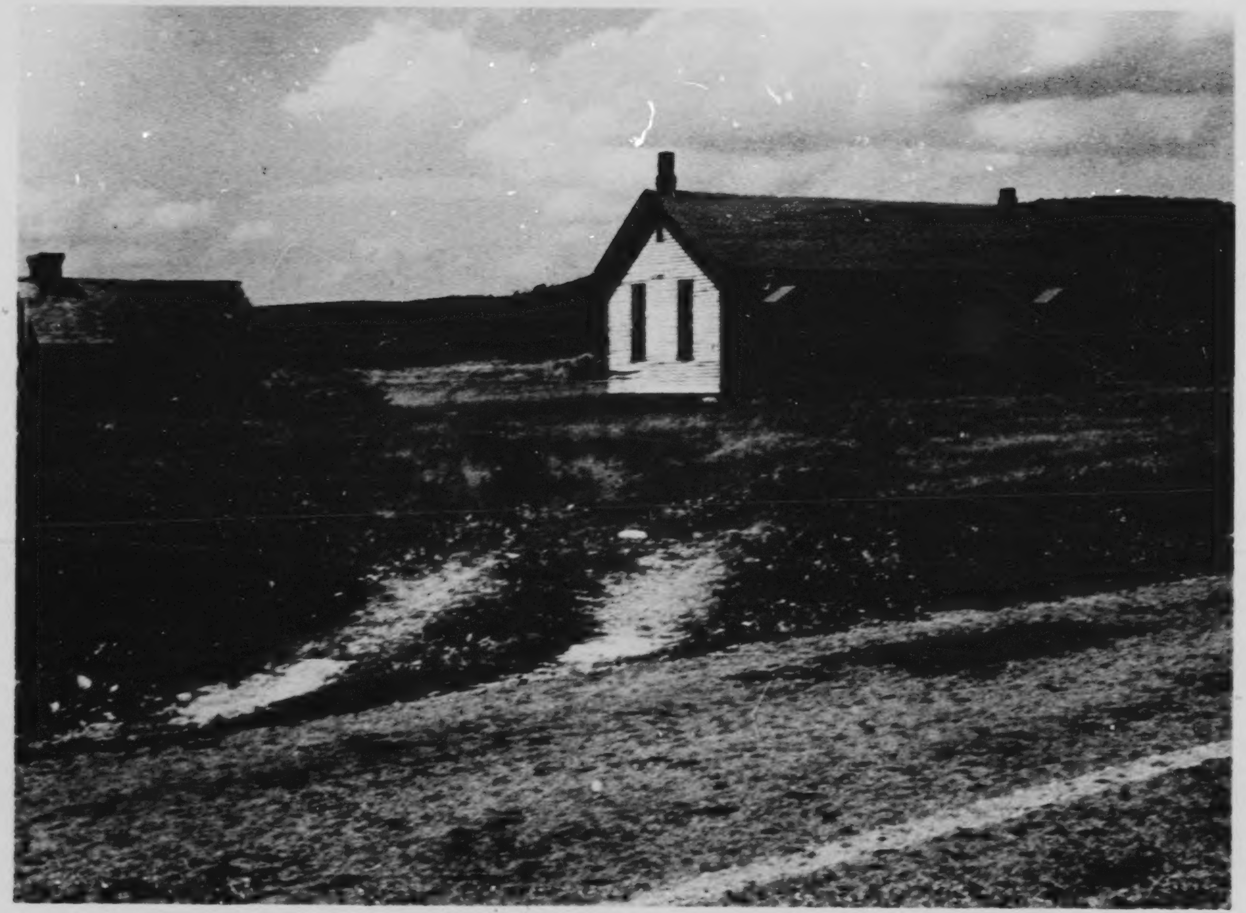
Save for a circle of houses near the Longhouse, 12 miles below Salamanca, the Coldspring settlement is strung out along the river from Red House to the north as far as Quaker Bridge or Tunessasa to the south. This is how it has been since the coming of the Friends to Quaker Bridge. But it was not always so, for the protohistoric and prehistoric Iroquois sites suggest more concentrated, "nucleated" villages. Iroquois settlement patterns had changed, and they would again.

But in the minds of the Senecas, the prevailing settlement pattern as expressed in the Medicine Song—"The houses of my grandchildren stretch in a long line"—represented their world-view, and they expected it to prevail indefinitely. Indeed, it had been so for 170 years, and the Senecas thought it guaranteed by the treaty made with President Washington at Canandaigua on November 11, 1794, and confirmed when their reservations were established 3 years later in an agreement with Robert Morris at Big Tree (the modern Geneseo). The "legal" words which Col. Timothy Pickering of Massachusetts wrote into the 1794 treaty terms to express Iroquois sentiment toward such solemn agreements are ". . . and the United States will never claim the same, nor disturb the Seneka Nation . . . in the free use and enjoyment thereof. . . ." By "never" the Indians meant "forever," or, as they expressed it in the metaphoric language of the council fire, "May it endure as long as the sun shines, the waters flow, and the grass grows. . . ." This sense of ritual time, the Senecas were soon to discover, had no meaning for the white people. Expediency, the reinterpretation of history to suit our convenience, would in the end rule our minds. Each culture retains the memory of its own symbols.

Scarcely 25 years after Pickering concluded the treaty of peace and friendship with the Six Nations at Canandaigua, Red Jacket, the famous Seneca orator who had been a party to it, protested against the discontinuity of American political memory. It would seem that the white men, for all their literacy, had scarcely been such careful custodians of tradition as the old Indians who relied only on their memories. "When we made a treaty at Canandaigua with Colonel Pickering in 1794," Red Jacket said, "we were told that it was to be permanent, and to be lasting between us and the United States forever. . . . Colonel Pickering . . . told us that this treaty should be binding and should last without alteration for two lives. We wish to make it extend much farther, and the Six Nations then wished to establish a lasting chain of friendship. On our part, we wished the treaty to last *as long as trees grow and waters run*. Our brother told us that he would agree to it."

Red Jacket continued, "Brother: We had thought that the promises by one president were handed down to the next. We do not change our chiefs as you do. Since these treaties were made you have had several presidents. We do not understand why the treaty made by one is not binding on the other. On our part, we expect to comply with our engagements. . . . Here is the belt of wampum that confirmed that treaty. Here too is the parchment. . . . Now the tree of friendship is decaying; its limbs are fast falling off. You are at fault." (Stone 1841: 300-301.) (Italics added.)

Indeed, it was this decay of faith furthered in the name of expediency that in the opinion of Charles E. Congdon, one of the ablest lawyers in western New York and a cofounder of the Conference on Iroquois Research—allowed some shrewd mind on the legal staff of the Corps of Army Engineers to surmount certain "treaty difficulties" which were recognized as being present in their report of 1938 U.S. Congress (House of Representatives . . . 1939: 42). This enabled the Corps of Engineers, by a process of legislative erosion, to secure the initial appropriation for the survey leading to the construction of the Kinzua Dam. At that time, no one in Congress realized that by voting for the survey for the Allegheny Reservoir, a project buried in the Public Works Act, he was, in effect, taking the first step toward repudiating our oldest treaty with the Indians. Thereafter, administrative indirection by our government and the way the Seneca case was han-



Coldspring Longhouse of the Seneca Nation on the Allegany Reservation dled in the courts contributed to the inevitable. The dam has been built and the flood gates are about to close. For the past year, the Senecas have been abandoning their frame houses and hemlock board shanties, building new homes, and moving off the bottom lands, not to mention their beloved valley. They have found the answer to Leo Cooper's prophetic question: "Do we have to learn to live like muskrats?" They have removed their lodges to higher ground.

It is my contention that the transformation of house-types will deeply affect family life. In the words of Dema Crouse Stoffer who, in the best tradition of Seneca matrons, had charge of this housing effort: "The Seneca people deserve a lot of credit for planning, financing, and building their new homes. People are asking whether new houses will change the Indians or whether the Indians will change the houses. Large families like Lester Jimerson's, with six or eight children, will now have four bedroom houses. They are taking their new responsibility seriously. They are planning, and looking ahead, and buying new furniture or good secondhand furniture. Avery Jimerson, whom we will meet presently as the mask maker, will have a tight house and he can use the garage for his shop. I think it will change Avery."

The close relationship of house-type to family structure is documented by both theoretical and historical sources. It was Lewis H. Morgan, student of the Iroquois and the father of American ethnology, who first elaborated the two principles of kinship and locality as basic to social structure in his *Houses and House-Life of the American Aborigines* (1888). The Iroquois bark longhouse was both the residence of the maternal family, the mothers, daughters, and their daughter's children, and at the same time the symbol of Iroquois society. The Senecas at Allegany occupied such bark houses clustered in settlements, not unlike their two new relocation villages of today, when the Friends of Philadelphia made their mission to Cornplanter's town and produced the first housing revolution in 1800. The Friends introduced carpenter-built log and shingle houses, made of lumber which they sawed in their own mills, and persuaded the Senecas to spread out on fenced farmsteads along the river. As long as the Indians lived in villages the warriors would not take up the "women's work" of farming, but with the introduction of oxen and horses and as the attendant result of living out of the sight of ridiculing neighbors, Seneca men commenced plowing and fencing their lands. This radical social change was noted in repeated visits over the next twenty years by Halliday Jackson, who thought of it as progress toward the gradual *Civilization of the Indian Natives* (1830). By 1820, the improvements made by 35 Allegany families comprised 440 acres of cleared land and a count of 26 horses, and 22 yoke of oxen. Even more providential statistics are available for later years (Jackson 1830:88).

The second housing revolution, in 1964, transformed the Senecas from inhabitants of hemlock-board shanties and frame houses to suburbanites dwelling in the most modern houses the American economy affords. This time it is of their own doing, in response to the impact of a disaster. The Council of the Seneca Nation employed a firm of planners to design two relocation areas on sites situated above the maximum flood elevation. The Coldspring Longhouse community has been relocated toward Steamburg. (Steamburg was named for a collection of sawmills and milkplants located there during the last century.) The site has 160 one-acre plots, allotted 3 acres to a family. New Coldspring, as it will be called (although "Steamburg relocation" was in vogue during construction) has two intersecting road loops ("8"-shaped) flanking a recreation area which contains the new Longhouse and the cookhouse. The site is pleasantly wooded, although a bit wet toward the south end (figure 1). To the north lies the Jimersontown relocation area, along the site of the Presbyterian Church and the Council House of the Seneca Nation. It adjoins Salamanca downstream, and immediately abuts the city limit. It is high, well-cleared land. Again there are 145 sites, distributed 3 acres to a family. There is again the same road pattern of two loops flanking the recreation area where a community building is being erected (figure 2). The choice, then, for the individual Seneca family lies between woodland privacy at New Coldspring and suburban living in Jimersontown, a choice not unlike that offered by developments on Long Island or in New Jersey.

Construction of the two relocation sites began in August, 1964. Despite the late start and the inclement weather there were some 70 homes under construction by the December council meeting. In his report to the Council, George Heron the Administrator, who has held every office in the Seneca Nation (Offices of the Nation are passed around much as in the British Cabinet), reaffirmed what I had seen on the flow chart posted in the Seneca Nation office in Salamanca: "We can now tell the stage of construction of any house, whether it is in foundation, framing, roofed, interior trim, plumbing and electricity—and the percent of completion of each phase. The weather is now against us. And, to enable the men to work inside during the cold weather we are heating with salamanders that burn propane gas, and this runs up the cost. Costs have also risen owing to Congressional delays."

The Nation became its own builder and employed one of its members, Lloyd Barnwell, an experienced construction man, to supervise the work. George Heron himself has been a foreman of steel construction crews. The Council formed the Seneca Nation Housing Enterprises, employing John Biscup as clerk. The crews were mainly Indians, many of whom are experienced artisans, and other Indians were in training. Wholesale purchases in large quantities netted substantial savings. There was some criticism of the work habits of the crews. "But," Mr. Heron pointed out, "the crews were gaining experience." He said that he was "sorry to report that certain Senecas downgrade whatever is done by the Council." "Someone has been writing to Secretary Udall," he said, "and to Commissioner Nash. The Commissioner sent a building inspector here. He stayed 3 days, and was quite pleased with what he saw. The homes are far above the standard encountered elsewhere on reservations where they have been similarly constructed with Federal funds. But, it so happens that the woman who wrote these letters has done us a good turn. We got some advice on how to solve the water problem on the site near Steamburg—by putting slip pads under the footings."

At the time of my December visit the flow chart listed 76 projects: 34 at 'New Coldspring,' as George Heron insists on calling the Steamburg settlement, and 42 at Jimersontown. Only the delay of connecting the utilities had prevented several families from spending Christmas in their new homes. A list of names copied from the project charts provided me a directory of old friends and afforded the time for some field work. I set out to interview as many people as time and weather permitted.

In Seneca society, one's first line of contact is through the members of one's clan. Paul Jones, a Faithkeeper in the Longhouse and a member of the Hawk clan, which also is mine by adoption, greeted me in town on the night of my arrival. My course, then, once I had checked in with my other clansmen, was to call on the leaders of the Coldspring Longhouse.

Among them were Albert and Geneva Jones, who had lived for years on the knoll above Coldspring Creek. They were eating their noonday meal of corn soup when I arrived, and they greeted me with the customary, "Thanks, you are well–" The amenities completed, I sat in the profferred chair, and we lapsed into reservation English, a jargon which everyone speaks, liberally salted with Seneca nouns and idioms. First, we discussed the community. "We will have one more Midwinter Ceremony to celebrate the Seneca New Year in the old Longhouse," Albert said, "but I want you to send me a list of the Indian moons, as I have lost mine. I think that the New Year Dance will start toward the end of January." (There is always a question of correlating the m[illegible] with a count that begins on the first full moon after the winter solstice in December and is supposed to come out on the 5th day of the following new moon, which is the date of the Indian new year. When there are 13 moons, the count must be adjusted, and there are disagreements among the elders as to which new moon of the new year is the one for the Midwinter Festival.)

I asked about the new Longhouse being built to replace the old structure in the "take area." "We want the new Longhouse to be just the way the old one is now, but longer and wider, and not so high. Now the boys look in the tall windows; it would be better to raise the windows higher. They can come inside if they want to see the 'doings.' As now, the doors should be at the ends of the building for men and women." There had been some discussion of putting the dining hall and kitchen downstairs beneath the dance floor but the women officials, who are also the cooks, objected to the stairs. They preferred a separate cookhouse as at the old Longhouse, but they would agree to widening the fireplace to accomodate a fifth big kettle when they cook for big crowds. The old Longhouse was heated with two chunk stoves (wood-burning stoves are ever preferred by the Senecas to modern heaters), one at the men's end and one at the women's end, each opposite a door. A fireplace at one end similar to that at Newtown Longhouse on Cattaraugus Reservation, the other community of the Seneca Nation, was considered as an acceptable substitute for a chunk stove: it would provide the ashes which are indispensible to the ceremonies. As Geneva remarked with the authority of her position as ceremonial leader, "We can't be without ashes for making corn soup and corn bread, and for all the other doings—the Faces, both the False-faces and Husk Faces, and the other ceremonials which require tobacco invocations on live embers; and, too, we stir the ashes in the fireplaces when the ceremonies go about the houses at Mid-winter."

The Longhouse of the Handsome Lake religion is both a church and a public building. It is used for meetings, elections, and social dances, as well as for the religious ceremonies. Although it was originally built by the Nation, the Corps of Engineers—as Clifford Crouse told me—would not replace or remove the Coldspring Longhouse because the corps had never moved a church. This doctrine of separation of church and state is foreign to Seneca culture. But, on the advice of counsel, the Senecas did not press the matter, leaving its restitution to the Nation out of its own resources.

Circumstances contributed to assuring early construction of the new Longhouse by the Nation. Because winter construction on houses at New Coldspring required shelter for building materials during the bad weather, it was to everyone's advantage to build the new Longhouse and get it under roof as soon as possible. Other than the requirements which the matrons had outlined, the new Longhouse

A car belonging to Albert Jones is parked in front of the home of Henry Redeye.

was like the old, although the materials were new. It is as much of this period as the old one was modified Victorian in style. The modified white colonial style is in keeping with the modern ranch houses neighboring it. It provides continuity with the past.

Place loss is a familiar phenomenon to social scientists who have studied human behavior in disasters. Individuals exhibit a certain malaise at seeing familiar reference points in their environment obliterated. It is important to recognize that this same phenomenon should occur among the Senecas. Theirs is no ordinary move to better surroundings. The old environment is being bulldozed out of existence, the houses which they abandon are torn down or burned, so that they have these losses with which to contend as well as adjusting to a new way of life in their improved housing. (*See photograph of burned-out house.*) The situation suggests several research leads which I will put here in the form of questions. 1) What will be the effect on Seneca culture? Specifically, will the ceremonies survive the move? 2) How will the old people react? 3) What anxieties will the acceptance and maintenance of new housing impose on the younger people? 4) A question for future research: Will the two relocation communities develop sub-cultures or variants polarized around the Longhouse and the church? If the latter are not determinants, look for local factors. Some interesting answers emerged in interviews.

The ceremonies will survive the move to the new Longhouse. The story begins with the account of removing the fire, a joint endeavor by the leaders of other centers of the Handsome Lake Religion, and an affair from which whites were excluded. Ethnologists respected the wishes of the Senecas by staying away, but fortunately, a Seneca who is a graduate student in anthropology was able to observe the rite, which makes his account of it to the Conference on Iroquois Research unique (see George Abrams, this volume).

Some people are now further from the Longhouse. In December 1964, I noted that at least 25 Longhouse families were removing to the site of New Coldspring. Ten others are church families from "down below" toward State Line. But also 13 Longhouse families were moving up to Jimersontown, where they are greatly outnumbered by church families. Nearness to work and school were factors in their choice. It will be interesting to see whether rapid transportation by automobile overcomes distance from the center of the ceremonies. It may not be as important as formerly, when everyone walked.

But the ceremonies have survived many moves in the past. Historically, Iroquois towns moved to new sites once or twice in a generation. It is only lately that ceremonial centers have become stationary. As settlements were fixed and limited by reservation boundaries at the opening of the 19th century, so also have the Longhouses been fixed in space.

The thought of moving evoked mixed emotions among the older people, who preferred their familiar locations and older houses. "I would rather stay just where I am in the old shack," said Albert Jones; and Geneva added, "I don't want gas; I am taking my old wood stove." Nothing was said about running water being a convenience, and that no longer would they have to go down over the bank to the spring or travel miles in dry season to fill a milk can in the Allegany State Park. Bill Cooper and his wife Hattie, who has since died, were in their mid-seventies a year ago. Bill spoke for them: "We don't have long to go. So we are not worried. We built this present house in 1933, as you remember, when you were first here living in a tent at Jonas Snow's." Interested in my trip to the Soviet Union the previous summer, and curious to hear how I had found the Russian people and their way of life, Bill remarked: "This is still a good country. We manage to work things out somehow so that everyone has his share." Ending the interview on this note of charitable patriotism and, not wishing to tire old people, I withdrew and went up the road toward Coldspring to call on Nettie Watt.

Nettie Watt makes superb splint baskets. She is the widow of the late Clarence Watt who, like his father Hiram, was prominent in the Seneca ceremonies. Two of their daughters work as secretaries in the Seneca Nation office, and a son sits on the Council of the Nation. Their frame house is one of the larger and more attractive homes in Coldspring. As Nettie summed up her situation, "We hate to leave the place, but the new house is attractive. We are used to space. One to three acre plots puts houses too close together. For some it will be better, especially for those who now do not have running water. Albert and Geneva go miles for water. But it couldn't be 'Coldspring' anymore; it will have to be named 'Steamburg Relocation.' "

Considering the cultural history of Iroquois settlement patterns, it is striking that the present Iroquois should prefer individual housing on scattered plots when their forebears lived in nucleated villages of adjacent longhouses. In the last century and a half, they have grown used to lots of space, and living scattered out along the river. As Toren Clark of Quaker Bridge summed up the present attitude, "Who wants to drag a deer taken out of season into a housing development? And have you thought that joint housing will produce one big drunk and fights? You know how the Indians are."

The younger Senecas were experiencing the kinds of frustrations that go with building a house in America.

Houses in the "take area" were torn down or burned. The owner of this house lit a match to it and walked away. Only the drawshave horse remains.

Maxine Crouse Printup is a college graduate. A year ago, she and her husband and two small boys lived in Red House opposite the Allegany Indian School where she teaches second grade. On a Saturday morning we found her two sturdy, preschool age boys, Mark and Mathew, watching television. Mark stomped through the house in cowboy suit, imitating his favorite TV character, knocking down his younger brother and then pointing one of his guns at my ribs. That morning Maxine was less than enchanted with her new house at Jimersontown. "We have had no end of bad luck with it. When they graded, they pushed in the foundation with the bulldozer. I could have cried. Then the interior trim showed hammer marks and the miters did not close. It all had to be replaced. They have had trouble with the amateur carpenters, young boys of the Nation who are just learning the trade on this project." In addition these young Senecas would for the first time, have to contend with mortgage payments and utilities bills, even though the Nation is their banker.

Freedom of choice in house plan was limited only by the offerings of American suburban architecture. In consultation with the Chairman of the Housing Committee, each family chose its house from a book of plans. (The Chairman was Dema Stoffer, who had testified so ably before the House of Representatives Subcommittee on Indian Affairs, even though in the past the women customarily chose a speaker from among the chiefs.) The size of house was governed by the number of bedrooms required for each family. The value of their recent home was then prorated in terms of the appraisal value as set by the Corps of Engineers against a schedule of subsidies, to a maximum of $15,000. For example, Nettie Watt's four bedroom frame and clapboard house appraised at $7,500; but her family agreed to accept three bedrooms, for which the subsidy was $7,600. Those who had the least to trade stood to gain the most. There have been some bitter complaints, ending in lawsuits, and there are one or two cases of ingenious speculation. At least two houses in the take area that were owned by non-resident Senecas were purchased on speculation for a fraction of their appraisal and trade-in value. One was in the path of a bridge approach, and netted the new purchaser almost the entire subsidy for a new house. Final approval of these subsidies rested with the Council, and it would be naive to assume that political considerations did not enter into the decision. But these few cases of questionable ethics do not negate the overall accomplishment, which is impressive.

The white people of Salamanca are quite interested in how the Senecas spend "their money," for the ultimate source of these monies is public taxation. The Senecas, however, regard the compensation that they have received as "our money." Among the questions being asked in Salamanca last year was one of particular interest to me, since I knew the circumstances on the other side of the "buckskin curtin." That question was: "Is the house going to change Avery? Or, is Avery going to change the house?" I had known Avery Jimerson first as the teenage son of a famous ritualist who was, on occasion, my informant. Avery had become his father's understudy in the ceremonies, and had also manifested considerable artistic talent in making drawings for me, and later in carving. Of late he has become the best mask maker at Allegany. He is also a singer of note, both social and ritual. Fidelia, his wife, is an avid social dancer and a "Faithkeeper," which amounts to membership in the altar guild of the Coldspring Longhouse. With the help of members of his singing society Avery had built their old house near Quaker Bridge out of old boards and used building material. As a structure it was neither tight nor particularly distinguished, nor were the premises tidy. But in it they had raised a family of attractive children. It was, therefore, pleasing to find them settled in a yellow three bedroom ranch house with attached garage, situated in the Jimersontown settlement (figure 4). In the months between my two visits they had moved in, and I had missed the housewarming. The singers had come up from Coldspring and put on a good stomp dance. In fact, on the Sunday afternoon of my call, Fidelia had to rouse Avery from a nap because he sat up until 3 a.m. after the dance that we both had attended at the Longhouse, swapping songs with the visiting Newtown singers from Cattaraugus. Fidelia was mopping the kitchen and cleaning her beautiful new stove. The children in the living room were watching and listening to the All-Star Professional Football game. And, I later learned, there was a baby grandchild sleeping in a bedroom beyond.

New problems beset Fidelia and Avery as householders. In taking out fire insurance, could I explain why they were expected to cover the Nation's investment too (as represented by the subsidy)? I could only welcome them to the club of mortgaged and insured householders, while felicitating them that the subsidy declines in 10 years without their being obliged to retire the principal. (This was a residential requirement that the Nation had imposed on those who received a subsidy to prevent their selling out in the first few years.)

Moisture was condensing on the glass sliding doors of the dining area from the steam of Fidelia's cooking and from the general drying out of the house, which is heavily insulated and heated by electricity. There was something said about the humidity control which was beyond me. "We have both had colds since moving in." Fidelia remarked, "We are used to a house with more natural ventilation." I recalled Avery's old house—how cold and drafty it must have been when the wind howled down the valley.

Like many of his tribal brethren Avery takes snuff, a trait that the Senecas acquired from Scandinavian wood workers. He had a pail at his feet such as the singers always keep under the bench, but twice, as we talked, he slid open the aluminum door to spit outside.

The Seneca passion for native folk dance music prevails. Knowing my interest, Avery entertained me by playing some tape recordings that he made of the Newton singers the night before and some earlier recordings made on a previous visit to the Six Nations Reserve in Canada.

As museum director and artist we inevitably fell to talking about masks. "Have you been carving?" I asked Avery. "I haven't made a mask in 5 or 6 years," he replied. This seemed odd for one so productive, and I wondered whether I had understood him. "I have no place to work," he added. "I asked them at the Nation office if I could build a shanty out back for such things, and they told me I could, and then that I couldn't." I suggested the garage. "We need that for the car." "How about the basement?", I asked. "They mentioned that, but I like to work out under the trees in summer, or in the shade of a shed. That is how we Senecas have always worked at making baskets and carving." It began to look as if the house would change Avery. It also appeared that the creative artist was disoriented in suburbia.

Then Avery began to press me, in my capacity as museum director, to help him find a missing mask which he valued very much. Perhaps it might be in some museum that I would know. "Thirty years ago, when you were first here, I made a 'doctor mask' under my father's direction. He told me just how to do it. I didn't use paint. Instead, I heated a poker, flattened it, and burnt the mask all over. It was a 'spoon-mouth,' and it had human hair. He told me the name of the person who donated the hair. Father sold this mask one day for a dollar and a half to someone who 'talked funny,' but he could not remember the buyer's name." Avery thinks the mask went to a museum in Germany and speculated that possibly the museum burned down during the war. He had heard that I had been abroad and wondered if I had seen that particular mask in any collection.

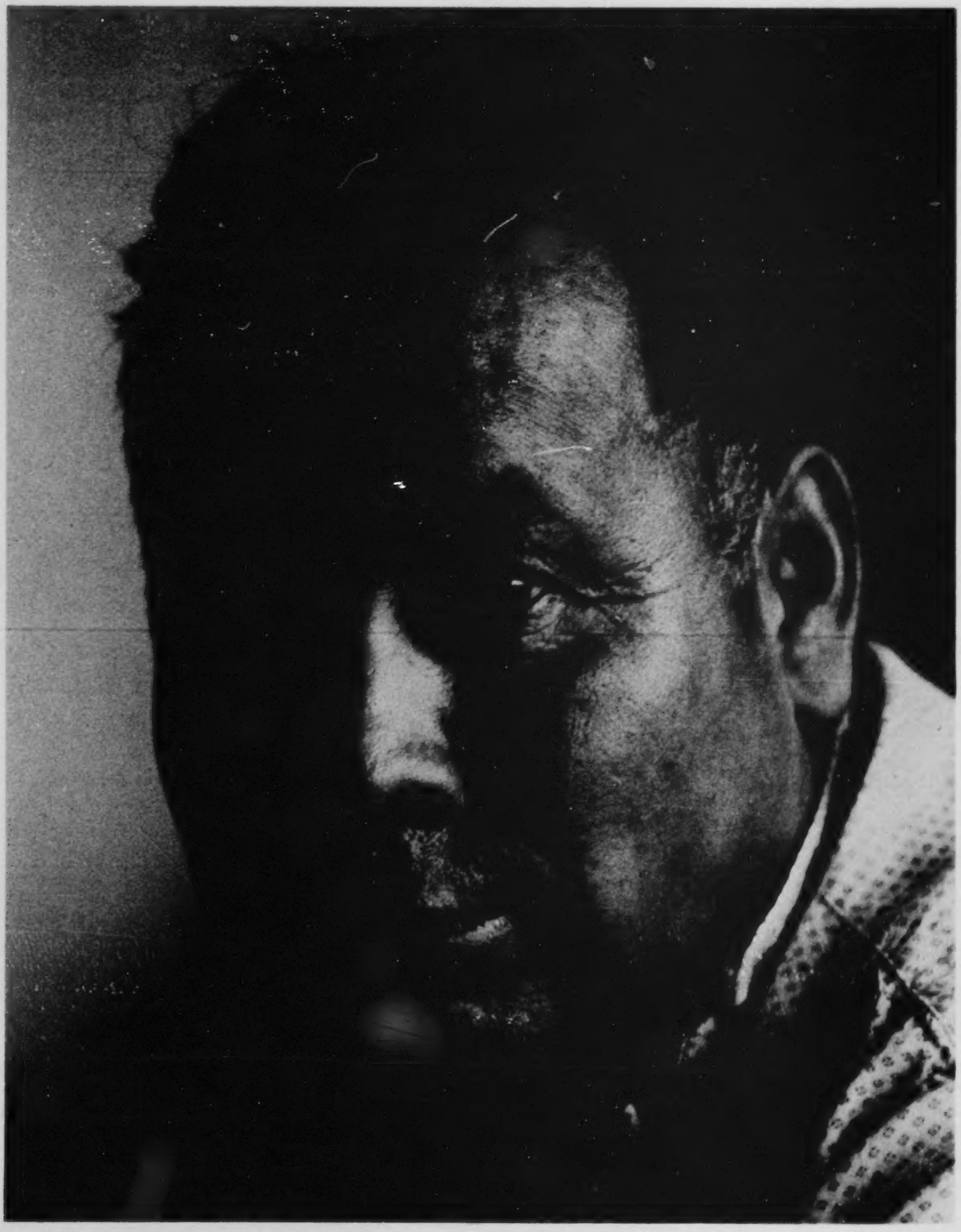
Despite this loss, the False Faces have indeed come to suburbia. Avery still has his father's mask. "I wouldn't sell that, ever. Maybe when I die I'll leave it to my son." Presently our conversation was interrupted by the arrival of guests: Sid Carney, a Choctaw from Oklahoma, and his wife. In his role as Coordinator of Kinzua Recovery activities for the Bureau of Indian Affairs, Carney was inspecting the houses of those who had recently moved. The Carneys went into the bedroom to look for separations. I was asked, "Have you seen the baby?" I remarked that I hadn't been told that I might look. Then, as Fidelia summoned me to follow and see her grandchild asleep in a bassinet, I noticed Avery's father's white doctor mask hanging over the bed, face out, with one other mask, of which only the back was discernible. It was incongruous to observe this note of old Seneca shamanism in a ranch house, but it was not out of place in the home of my friends. Indeed, it made me feel at home.

Across the way live Kenneth and Tessie Snow and Kenneth's mother, Sibbie Snow, all of whom have so ably assisted anthropologists and linguists. Tessie welcomed me and showed me through her new house with its well-appointed kitchen—the envy of any housewife. Tessie had just been the subject of a feature in the Olean paper. It was Sunday, and outside cars paused. "I begin to feel like Jackie Kennedy," she remarked. "Everyone is looking in my windows."

George Heron joined me to visit the nearby home of Leslie Bowen. Leslie had grown up in Coldspring; his grandmother, Esther Fatty, had preceded Geneva as moiety officer for the ceremonies. On Leslie's return from the war, having served in Eisenhower's army in France, he had married, purchased Chauncey Johnny John's old home at Coldspring, and had himself become active in the Longhouse. We found Mrs. Bowen mopping, but she was having far less trouble than Avery and Fidelia with condensation. "This is a basic home," George said, "it has no extras." Mrs. Bowen had found some minor things wrong: missing electric outlet cover plates, a warped front door—items which George promised to take care of if they would bring a list of them to the Nation office.

A large red rambler then under construction has since been completed for George Heron's family. There is now space for his three teenage children, one of whom attends State University at Alfred. At the time he took me to visit it, the house was framed, roofed, and partly sided. He pointed out with pride that all of the lumber is of top quality, and, as if to verify it, we tried the casement windows. There is a full basement for a future recreation room, and he had bought for his young people a pool table the past Christmas, which, temporarily, until their own house was ready, was set up across the way in Paul Lee's basement.

George's rear windows look out over an extensive junkyard that is an eyesore on Route 17, and which had been the subject of prolonged discussion at the January Council meeting. "We will snatch some of the wrecks that are now stored on Nation property and bulldoze them into low places and bury them with top soil. They have no value, since the steel mills no longer use scrap," George volunteered, and when a Seneca talks of steel I listen. Notwith-



Avery Jimerson, a member of the Bear Clan of the Seneca Nation, is a singer and a carver of false faces. His masks are displayed in the major museums of the world.

standing the want of a market for the wrecks, the proprietor of the junk yard claims that the wrecks are worth $25 each. The Senecas have manifested no intention of paying his price, and it would appear that if the Senecas can solve the problem of the yards of auto wrecks that now clutter the New York State landscape—and they do appear to be on the way to regulating them—the Indians will have pioneered an area of social control in which whites have thus far failed.

Short of a personal census and house count, the best summary of accomplishment during the housing revolution of 1964 is contained in a message from Martin Seneca, the president of the Seneca Nation, in the June-October issue of the *Kinzua Planning Newsletter* (Vol. III, No. 9, 1965, 3-4). It appears that programs totaling nearly $5 million have been approved by the Council, representing one-third of the original award under Public Law 88-533. Surely the most spectacular program has been the effort to provide homes for the families that had to be relocated. Recalling how "the Corps of Engineers kept setting deadlines when the families had to be moved or be flooded out," how at first the Nation tried to contract to have these homes built, but how they ran into difficulties with financing "because the homes were to be built on reservation land," President Seneca tells of creating the Seneca Nation Housing Enterprise, which then proceeded to build 115 new homes in the Jimersontown and Steamburg areas, under the most trying conditions—through the wet season and the winter months. He takes justifiable pride in the job that was done. One hundred of the homes were complete in November. It was now time for an accounting, and a firm of certified public accountants was brought in.

One thing is certain to happen in a community that is governed by diffuse sanctions: there was talk about the money. "Rumor has it that we are broke, which is far from the truth," President Seneca's message continues, spelling out the elements of program budgeting. A specific sum was appropriated for each approved program, all within the rehabilitation fund of $12,128,917. At the time of his report, $1,076,000 had been appropriated to the Housing Enterprise; $1,800,000 to the Educational Foundation; and slightly over $1 million for two community buildings. Lesser amounts had been expended for industrial development, the work of a planning committee, and similar matters that are peripheral to our present concern.

The two community buildings, one on the Cattaraugus and one on Allegany Reservation which, when completed in January 1966, will afford offices for the Seneca Nation, tribal council chambers, a regulation-size gymnasium, a library, dining area, and kitchen—are features that mirror Seneca interests and aspiration. (*Kinzua Planning Newsletter*, Vol. III, No. 8, June 1965, 6-7.) In addition to the new Longhouse at "Jo-neh-gah-no" (Coldspring), which has now been in use since its dedication in June, Baptist and Presbyterian churches are under construction at Jimersontown. Truly, one might say the Iroquois are a nation of house builders: *hotinonsyon:ni:h.*

As Dema Stoffer said, "If the housing will not uplift the people, the educational fund will." Certainly less spectacular, but perhaps of a more fundamental character in improving the next generation of Senecas, is the effort of the Senecas to educate their young people beyond high school. The Seneca Nation Educational Foundation was capitalized at $1,800,000, a fund that was justified by a survey of the educational and vocational aspirations of Seneca youth, and by a projection of these aspirations for a 20-year period. An advisory council which is chaired by Maribel Printup, a secretary in the office of the Nation, includes the superintendents of the local school districts and a professional social worker. The Foundation is chartered by the State of New York. Some 47 students have been helped to attend colleges; summer schools on the reservation to help those in the lower grades make up deficiencies were sponsored, and a part-time guidance counselor was employed for each reservation. The Senecas are quite conscious of the value of education but they are not in agreement as to how it should be attained. It is not at all clear to me that the need is for additional Indian scholarships. Much greater is the need to prepare candidates for already existing scholarship opportunities for which Indians are eligible, or perhaps enjoy a preference. The more knowledgeable Senecas who are university people are aware of this situation. One of them said, "They are talking about scholarships beyond high school when the need is to produce more high school graduates. The money is needed down in the grades to help the Indian children make up language and reading deficiencies. But the greatest need is to get the parents interested in the educational progress of their children. There should be an active Indian PTA. At present, the Indians do not take part."

The want of Indian representation on the school boards of districts where the education of Indian children is contracted for by the State is a constant complaint of officials of the Seneca Nation, and of other Indian tribal representatives. This demand cannot at present be satisfied short of rewriting the Education Law which strictly defines how school boards shall be elected. Regardless of any question of civil rights that may be involved, Indian adult participation in educational affairs is important to the progress of the children. There is no discrimination against Indians in the Salamanca schools, and more Indians than formerly are completing high school. They are valued members of the school community. On the other hand, I am told that teachers are sometimes puzzled when Indians in high school are failing in two subjects. Better communication with parents seems indicated, and this is a two-way road.

In Salamanca, the paths of the white man and the Indian are rapidly converging. For this reason I have made one excursion out of housing into education, because the two are interrelated. The people in the new homes have a higher standard of living to maintain, and to do so they must have better jobs, and better jobs continually have higher educational thresholds for entrance. I shall dwell on two aspects of the situation.

With assets of $15 million, the Seneca Nation is now big business, and it may be the largest corporation on the southern tier of New York west of Corning. Just as it made the transition from a kinship state to a territorial government by establishing the "Seneca Nation" in 1848, with a constitution and officers elected by districts, so today with a full-time salaried administrator and office force it has become a considerable entity in the local economy. This is bound to change the image of the Indian.

Affluence has also enhanced the Indian's social status and mobility. Today the Dudley Hotel bar and lobby is virtually a Seneca Nation club in which bank officers, lawyers, and business leaders rub elbows with the leaders of the Seneca Nation. Twenty years ago, one never saw Indians going into the Dudley or even standing out in front. This does not mean that there are not beer joints that are predominantly Indian hangouts; there are such places. And, talking with a social worker, I sensed that alcoholism is a problem that the Senecas must face, that the Nation should give this matter some attention. But at the moment the Nation has more positive future programs in mind. Just now they are trying to decide how to handle funds to yield the greatest return for the projects programmed.

Two years ago the raising of the discount rate by the Bank of England created a shortage of lending money that was felt even in Salamanca. When the Seneca Nation has $1 million to deposit and there is the prospect of receiving additional millions from the U.S. Treasury, the officers of all the local and regional banks are interested in extending their services to the Nation. The Treasurer and the Administrator of the Nation now occupy positions which the local financiers must take into account. Favor and respect have not yet been offered to the extent of making room on the boards of local banks for these officers. The net effect, however, is to draw the Indians and the whites together. The two poles of the social situation become complementary. Naive writers, on first glimpsing the local situation at Salamanca, fall into the common American fallacy of sensing a dichotomy and interpreting it as hostile. But actually the relation between the two races and cultures is one of ambivalence. They are mutually dependent. In Seneca society, the moieties, or dual divisions, function to support each other in time of grief. They cooperate, and they contend with and draw off hostility in games. It would appear that the relations between the Seneca Nation and the Salamancans are moving in this direction. Indianizing the white man is a process that is at work side by side with improving the Indian. Both are part of the same process of culture change.

These problems of intergroup relations as they affect improving the image of the Senecas by according them higher status in the community and giving them roles of greater social importance to fulfill are not as important at the moment as finding steady employment in new occupations for a larger number of householders. Jobs are needed for the majority of the heads of 100 families, which will assure incomes adequate to meet new financial responsibilities. The Council has recognized this problem and assigned it to a Committee on Industrial Development. Jobs are needed also on the Cattaraugus Reservation. Whether the new industry takes the form of a pillow factory or an addition to an existing furniture industry is irrelevant to the present discussion. The need is the same. I have been concerned with this problem only indirectly.

It appears rather obvious to an anthropologist that the presence of Indians with a viable culture of their own is what makes the region of southwestern New York different from the rest of the United States east of the Mississippi. Consequently, the Seneca Nation has a chance to do something unique for the cultural life of America. The Senecas have under consideration a most interesting proposal to establish a non-profit historical and educational institution which would salvage and interpret a rich segment of Iroquois culture. By creating an Indian village or outdoor museum analagous to the type that has drawn so many tourists to Scandinavia (and of which Sturbridge and Cooperstown are the outstanding examples in the Northeast), the Senecas can illustrate the life of Woodland Indians and tell the story of their continuous contact with Europeans during 300 years. *Iroquoia* is the name that has been proposed for this venture, a return to the old French term for the Longhouse of the Iroquois. It would be a live museum, featuring a stockaded village containing examples of evolving Seneca architecture from the bark and log houses to the modern rambler, and there would be demonstrations of arts and crafts, games, dances, and ceremonies. There would be a combined orientation center "at the woods edge" with museum, library, and conference facilities adequate to accommodate meetings of 100 persons and their families and which would attract scholars. In the Longhouse of Iroquoia, the Conference on Iroquois Research would find a home. Strongly favored by the planners are a restaurant featuring Indian foods, and a pageant. If the Senecas can avoid creating another tourist trap and can center their program on the enduring features of their own culture, they will attract and hold guests from all over America and Europe, where the image of the Red Indian thrives. Many people who come to see Niagara Falls and to camp in the Allegany State Park would welcome the opportunity of spending a few days "in the hands of the Senecas." The Senecas are aware of the public relations value of this proposal and have substantial seed money for such a venture, but they are going to need matching funds from foundations or other sources. The principal drawbacks to the success of Iroquoia are the short season and the lack of trained personnel. Senecas will have to be trained to operate the enterprise: as resort managers, museum curators, librarians, etc.—a legitimate use of funds of the Educational Foundation. But like the latter, Iroquoia must have its own Board of Trustees which will co-opt the best brains of the Nation and of the learned world. As a quality educational enterprise or open air museum Iroquoia has a good chance of succeeding.

As a tourist attraction with limited initial investment of capital, *Iroquoia* would not recover its cost: it would lose money. Its success then rests with the Senecas. They must decide. In the time since the field work for this paper was done, the council has deferred taking the plunge to go for the big project. Instead they have authorized further studies. Perhaps they are wise in postponing action while their money accumulates interest. But rising construction costs and growing scarcity of labor make the project more expensive year by year. Meanwhile, having moved into their new homes, their standard of living has risen and they need gainful employment. Further studies for planning purposes only add to the administrative costs of their government and will not change the picture radically. And aware of these rising costs the people have voted in a conservative government which cannot be expected to support enthusiastically projects of the previous party. This may spell the doom of *Iroquoia* until someone figures out a way of meeting the demand of tourists from western Europe to see "Red Indians" near Niagara Falls.

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Moving of the Fire

A CASE OF IROQUOIS RITUAL INNOVATION

George Abrams, State University of New York at Buffalo

Virtually unique in Iroquois ritualism was the moving of the fire of the Coldspring Longhouse. The ritual essentially involved the desanctification of the Coldspring Longhouse and the sanctification and dedication of the recently constructed Steamburg Longhouse in the Steamburg relocation community on the Allegany Reservation. The removal was necessary because the old location was below the 1365-foot elevation being flooded by the construction of the Kinzua Dam.

In preparation for the move, representatives of all Iroquois Longhouses in the United States and Canada met at the Tonawanda Reservation to plan the ceremony for this rare occasion. Although at least two other Longhouses were abandoned in the early part of this century, this latest removal was unprecedented since it was forced by circumstances beyond the control of the Indians. As the events which surrounded the abandonment and removal of the Windfall (about 1913) and Horseshoe (about 1921) Longhouses, both located on the Allegany Reservation, were either not recalled or were not accompanied by any elaborate rituals. no model for the extensive ceremonies desired for this latest Longhouse relocation was available and the ritual had to be created.

At the Tonawanda meeting, a representative of each of the Iroquois Longhouses was apportioned a part of the ceremony. This was necessary because of its great length. Saturday, June 12, 1965, was agreed upon as the date. Because the Allegany Senecas had recently experienced some unpleasantness regarding non-Indian attendance at the regular religious ceremonies, it was decided that the whites would be barred from attending.

Formal representatives of the Iroquois Longhouses, interested Christians, various officials of the Seneca Nation, and other Indians made up the several hundred who attended the ceremony. As is often the case in Iroquois ceremonies, the scheduled beginning time (9:30 a.m.) was not met and the ceremony did not begin until 10:20. Described below is the essence of the ceremony, which lasted almost 9 hours.

At 10:20 the first speaker approached the men's door of the Coldspring Longhouse and announced to those outside that the ceremony was about to begin. Benches for the Longhouse officials were arranged at the men's end of the Longhouse, facing their fire. The first speaker began by stating that the representatives of the other Longhouses were now present, at the request of the Allegany Senecas, to conduct a ceremony of removal to their new Longhouse. During his speech tobacco was passed out to all the people present, including the smallest child. Wampum strings, representing each of the individual Longhouses, were given to Corbett Sundown (chief speaker at the Tonawanda Longhouse), who was the leader throughout the ceremonies. The first bench, that closest to the men's fire, accommodated two pairs of men. The wampum strings were arranged on the bench between these two pairs. One of the wampum strings was exceptional in that instead of being entirely made of white wampum, it was alternately white and purple. The speaker mentioned that one of the representatives was missing but that he was expected momentarily. Before he had finished speaking the tobacco that had been passed out earlier had been collected from all in the Longhouse and replaced in the paper bags.

The second speaker remarked in his speech that the council fire of the Allegany community was being disturbed through no fault of their own.

The third speaker gave what was essentially a recitation of Handsome Lake's message from the time of his vision to his death at Onondaga. He also mentioned the beginning of Handsome Lake's journey from Cornplanter's village to Allegany, and then to Tonawanda, and Onondaga.

The fourth speaker began his talk with the death of Handsome Lake. He then talked about the threat to his religion, the three Seneca Longhouses (in New York State), and the three paper bags of tobacco representing these Longhouses.

The fifth speaker gave general thanks to the people of Allegany for their hospitality and noted that it has been 165 years since the beginning of the religion.

The sixth speaker said that the wampum strings should not be misused, noted that the prophecy that Handsome Lake's religion would be disturbed was coming true, that Tonawanda was the central fire of the Iroquois religion, that the Indians were being "squeezed out by the whites," and remarked about the gradual lessening of the Indian land base, etc.

The seventh speaker gave a sort of explanation of the next part of the ceremony. During his talk the wampum strings were gathered up and placed in a beaded bag.

Lunch was then served at the cook-house. At 2:10 a.m. the ceremonies were resumed, and the two Allegany Longhouse members joined those seated on the benches.

The eighth speaker gave thanks for the lunch. The wampum strings were again laid out as before.

The ninth speaker took the most time of any of the speakers at the Coldspring Longhouse and was the most moving. On several occasions emotion overtook him and he had to stop momentarily. This speech was accompanied by the traditional tobacco burning. Its chanted, regular measured verses were essentially those of the Thanksgiving Speech, enumerating the people, plants, water, trees, animals, birds, "the Three Sisters," the winds, thunder, sun, moon, stars, the Four Beings, Handsome Lake, and the Creator. It ended with the statement that the ceremonies sanctioned by Handsome Lake would be held in the future.

The tenth speaker, a delegate from Allegany, gave thanks to the representatives of the Six nations for heeding their request and stated that the last Great Feather Dance was now to be performed at the Coldspring Longhouse.

The Great Feather Dance was then performed. At the end of the last dance set, the men's door was closed, and everyone filed out the women's door. It was 3:20 p.m. A cavalcade formed and proceeded to the Steamburg Longhouse.

At 3:45 p.m. the first speaker at the Steamburg Longhouse gave thanks to those who attended, told the people to encourage their children to attend the ceremonies, and to dress in costume whenever possible. He encouraged the Allegany Senecas to continue in their religion even though they are discouraged and dissatisfied with having to move to a new Longhouse, explained the use of the wampum in confession, and concluded with the statement that "the wampum strings are now informed." The move from the old to the new Longhouse had now been accomplished.

The second speaker, Ed Curry of Allegany, thanked everyone for his participation in the ceremonies, and gave special thanks to the representatives from the other Longhouses.

The next six speakers, visitors from other Longhouses, gave relatively short speeches, saying that they were eager to attend the ceremony, indicated their sorrow at the difficulties of the Allegany Seneca, related anecdotes of their various trips to Allegany, and extended encouragement to the Allegany Seneca to continue their ceremonies. These speakers, by their jests, tended to relieve the emotionality that had accompanied the major preceding addresses.

Ed Curry rose once again, thanked those present, and stated that the ceremony would be over when the Great Feather Dance was once again performed.

Corbett Sundown rose and admonished the Oneidas because their wampum is mainly composed of purple wampum and not the required white. They were informed that they must rectify the situation before the next Six Nations meeting.

The Great Feather Dance was performed, and the ceremony ended at 7:10 p.m.

Two aspects of this ritual are of major importance. First, the ceremony was composed for the occasion. The various major elements of the ceremony, such as the wampum, the burning of tobacco, and the Thanksgiving Speech are those which also form the essential components of other ceremonies sanctioned by Handsome Lake and celebrated yearly in the Iroquois Longhouse community. But as noted above, earlier examples of Longhouse removals did not provide the elaborateness desired for this particular ceremony. The movement from Windfall to Horseshoe was not accompanied by any ceremonies that are now remembered. One older Allegany Seneca recalled that when the Horseshoe Longhouse was later torn down and the lumber used to build the Coldspring cook-house, tobacco was burned, but that no general assembly of all the Iroquois communities was called to attend and that the emotional element attendant on the forced removal did not accompany the abandonment of this earlier Longhouse. The wampum accompanied the move from the Coldspring to the Steamburg Longhouse, but when the Longhouse at Horseshoe was abandoned the wampum was returned to the Tonawanda Longhouse.

Secondly, religious cohesiveness was demonstrated in a rather dramatic and unusual manner. The ceremony was an occasion on which the various Longhouse communities gathered to encourage and establish the relocation of the new religious community at Steamburg. By allotting a portion of the ceremony to representatives of each of the Iroquois Longhouses, overall Iroquois religious unity was demonstrated and reaffirmed.

Seneca Nation Factionalism:

THE FIRST TWENTY YEARS

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On December 4, 1848, a convention held on the Cattaraugus Reservation proclaimed a change in government for those Seneca residing on that reservation and on the Allegany Reservation. The "revolution" removed the hereditary, lifetime chiefs from power and instituted a "republican form of government" with a council elected annually by a majority vote of adult male Seneca on the two reservations.

This action split the Seneca on these two reservations into two factions—those in favor of the "republican government" and those in favor of "old government by chiefs." These factions do not seem to correspond to previous divisions among the Seneca. The "old chiefs" party, for example, contained Christians and pagans, emigrationists and anti-emigrationists.

While several factors undoubtedly contributed to the 1848 revolution, the new method of paying the annuities was perhaps the most disruptive factor then existing on the reservations. The new government party was solidly in favor of the distribution of the monies to the heads of families, while the old chiefs party felt the old method of distribution, in which the money was turned over to the chiefs who distributed it only after taking a portion for government expenses, should be continued.

Both parties recognized Albany and Washington as seats of power and petitioned the governments located there for recognition as the legitimate representatives of the Seneca. The sub-agent for the New York agency chose acceptance or rejection of the annuities by heads of families as an indication of party affiliation. That is, if an Indian accepted the annuity payment, he was felt to be in favor of the new government, but if he rejected it, he was considered to favor the old chiefs. A slim majority of the Seneca on Cattaraugus accepted the annuity payments, and a larger majority accepted them on the Allegany Reservation. On the basis of this, the sub-agent recommended to the Indian Bureau that it recognize the new form of government.

The Indian Bureau at Washington also asked the Quakers for their opinion as to the wishes of the majority of the two reservations. The Quakers in turn asked Peter Wilson, who reported that a majority favored the new form of government. On this basis the Quakers recommended that the new government be recognized. Peter Wilson, a Cayuga chief and U.S. Interpreter for the New York agency, did not constitute an unbiased authority, however, as he considered himself a leader in the progressive camp, the new government party.

On this basis the Federal Government, and in turn, New York State recognized the new government by Councillors. The old chiefs petitioned against this decision, and against the influence of Peter Wilson on the reservations. Finding this action useless and on the recommendation of several non-Indians, they entered the election of May 1851, for Councillors. They carried the election. Immediately they abolished the Council and reinstated the old government by chiefs. Albany and Washington did not act, and this inaction favored the new government party, as the elected council was the recognized form of government.

After the chiefs won the election again the next year, the Federal Government decided to take a vote to determine the sentiments of those living on the reservations. The results of this poll were inconclusive because the new government party refused to vote, claiming a constitutional amendment forbade them from doing so. The vote cast was unanimously in favor of the old form of government by chiefs, but it did not constitute a majority of the Seneca on Allegany and Cattaraugus. The Federal Government again took no action, and in the election of May 1853, the new government party was returned to power.

In the summer of 1853 the Quaker Phillip E. Thomas reported to the Indian Bureau that more harmony existed on the reservations than for many previous years. The chiefs denied this and went so far as to suggest that the reservations be partitioned so that they would not have to live under what they termed a "paper government."

The old chiefs were returned to power in May 1854, by a vote of 105 to 103. As recorded in the minutes of the Council of the Seneca Nation, the old chiefs immediately launched an investigation into the financial affairs of the previous administration. They tried again to upset the constitution. During the convention, the Seneca voted against the 1848 constitution by a vote of 102 to 96, but this majority was not the two-thirds of those voting required by the constitution for its amendment. Both parties claimed to have gained a victory at this election. The Federal Government continued to recognize the new constitution.

This ended the division between the old chiefs party and the new government party for a time. As is evidenced in the Seneca Nation Council minutes, party disputes still took place—investigations of previous administrations are still continuing—but the two old divisions of old chiefs party and new government party were no longer present, and agitation for abolishing the constitution and council ceased for a few years.

One last dying gasp was heard for the old government by chiefs. The excitement caused by the Kansas Land Claims being pursued by the Six Nations was at least a contributing factor in this final effort by the old chiefs to regain their power. A convention was held October 4, 1864, on the Cataraugus Reservation. This convention voted by a 34 to 11 margin to reinstate the old government, with chiefs elected in the ancient manner of the Iroquois. In November delegates from the Onondaga, Cayuga, Oneida, and Tuscarora met to install the new chiefs; 35 were installed. Siding with the old chiefs were four of the Nation's five elected councillors. The President, Henry Silverheels, refused to accept the change, however. He immediately appointed new councillors in place of all those who went over to the old chiefs.

Again the dispute was carried to Washington. Again Washington settled the issue, and again remained with the new form of government, the elected council.

The transition of the Allegany and Cattaraugus Senecas from government in the traditional manner to government by an annually elected council was neither easy nor calm. Evidence indicates that this move at first split the reservations rather evenly, with neither party able to gain a clear majority. Both parties realized that the source of their power would of necessity be in Washington and Albany. Both parties petitioned these governments for recognition as the legitimate ruling body of the Seneca. It is the continued recognition by the Federal Government of the new form of government that seems to have assured victory for the new government party, the new constitution, and the elected council.

Acknowledgments

The research for the paper abstracted here was supported by a Graduate Student Honorarium from the New York State Museum and Science Service and a grant from the Phillips Fund of the American Philosophical Society Library. The paper as read at the 1965 Glens Falls Iroquois Conference and, as abstracted here, is by no means in its final form. I intend to both collect more data and to do more work with the data collected last summer before such a final form is reached. Future work will, I think, supplement rather than alter the picture presented in this brief and admittedly incomplete paper.

Thanks must be expressed to the Seneca Nation—the executive, the council, and the people—for giving me access to the council minutes and providing many fine hours discussing Seneca Nation history and politics. Robert Berkhofer was kind enough to loan me his manuscript which covers missions and factions in this and an earlier period of Seneca history. I received fine treatment at the Buffalo and Erie County Historical Society, housing the Maris B. Pierce Papers, and the American Philosophical Society Library, with its Ely S. Parker collection. These two collections, along with materials on microfilm from the New York Agency in the National Archives, are the basis of this paper. Hopefully, an expanded version with full citation and bibliography will be completed in the near future.

I am much in debt to William N. Fenton, who suggested this problem to me and has been free with his advice as I continue to pursue it.

Problems of Tuscarora Language Survival

Barbara Graymont, New York City

The Tuscarora language has shown a remarkable endurance, surviving over 200 years of contact between Tuscaroras and whites. The language is still spoken on the reservation in Niagara County, New York, although fewer and fewer of the young people have developed any facility in using it.

The time has now been reached, however, when the Tuscaroras themselves realize that their language is facing a crisis. All Tuscaroras speak English, but usually only the middle-aged and older people speak Tuscarora with fluency. This situation has resulted from a neglect on the part of parents to teach the language to their own children in the home.

This is no isolated problem among the Iroquois. On other reservations there is also a noticeable decline in the number of persons who can still speak the Indian languages. The recognition of this has caused enough concern and alarm among various Iroquois to encourage efforts to check the drift of the language toward oblivion. The Tonawanda Seneca, for example, have attempted somewhat unsuccessfully to organize classes for instruction in the native language. The Iroquois on the Grand River Reserve in Ontario have made similar efforts. The opening remark in one of the instruction booklets compiled by a native teacher states its purpose in both English and Mohawk: "This book is written because we are losing our language fast."[1] Despite such endeavors, however, the progress is negligible, for the scantiness of teaching materials and the difficulty of acquiring an unfamiliar idiom have proven to be almost insurmountable barriers. Since most Iroquois are now fluent in English, there is no pressure on the young people to learn the language of their forebears. It is so much easier for them to depend upon the white man's tongue in their day-to-day relationships. As a result, unless the language has been learned during childhood, it is almost never learned during adulthood.

One young Tuscarora commented on what has been a rather typical pattern: "Our parents never taught us the language, even though they spoke it themselves all the time. They used it when they didn't want us to know what they were saying."

Now, though, some parents are beginning to develop second thoughts on their original attitudes toward the value of their language. One woman who frequently speaks Tuscarora in preference to English told me, when I asked her why she had not taught the language to her children when they were young, "I didn't see any need of it at the time, but I know now that I did wrong in not teaching it."

So long as parents and children could communicate in English, and so long as the children would only need a knowledge of English in their contacts with the white world about them, many parents saw no necessity of passing on the mother tongue. English was the only language spoken in the reservation schools and for many years children were punished by the teachers for speaking Tuscarora. Thus it was consistently impressed upon parents and children alike that English was the language of the educated person, the language of those who were to succeed in their relations with the dominant culture, and that Tuscarora was somehow a second-rate language, none too important, and even undesirable. In addition, it was also most convenient for parents to have, in the Tuscarora language, their own private code which their children could not decipher.

As a consequence, the use of Tuscarora has begun to fade rather rapidly among the younger generation. There are only a minority of homes in which Tuscarora is spoken exclusively. Even some of the adults approaching middle age speak Tuscarora with a faulty accent, for English was the primary language of their childhood and youth. As is said of them, they have "cracked speech."

The present status of the language and its future survival have caused no small amount of concern to many members of the tribe. Here is a part of their tradition and culture which is slipping away from them. There have been numerous but abortive efforts among the members of the tribe to encourage the preservation of their native tongue.

Over the past years there have been sporadic attempts to organize a Tuscarora language study class. These classes have gone along for a time but have eventually petered out. Every so often the attempt is revived but the result is always the same.

One important reason for the failure of the classes to survive is the lack of adequate teaching aids and an un-familiarity with methods of language instruction. Most of the members who attend the classes must now learn their tongue as a foreign language, which is sufficiently large an obstacle in itself. But there are also other basic problems. There is no agreement on orthography and much time is spent in puzzling over the best way to represent Tuscarora by use of the English alphabet. There is no written material in Tuscarora, save for an unreadable 19th century hymnal. Even among some of the fluent speakers there is often a hazy knowledge of tenses, resulting in frequent peripheral discussions about proper grammar. With little progress achieved, interest in a formal study of the language soon lags. That an interest is still maintained despite these impediments, however, is demonstrated by the repeated efforts to establish these classes.

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[1] Julia L. Jamieson, *The Mohawk Language. Book No. 3*, Hagersville, Ont.: Hagersville Press, 1960.

About 7 years ago, when the Tuscarora Nation was deeply involved in a land struggle with the State Power Authority of New York, there was a great revival of interest in the Tuscarora language. With State Power Authority officials, engineers, and surveyors attempting to take possession of a large section of the reservation for a reservoir, and with local and State police called in in great numbers to break up the Tuscarora passive resistance campaign, the Indians quickly turned to their own language so that their conversations could not be understood by the intruders. The Indians also had evidence that their telephones were being tapped. Telephone linesmen were working on the reservation around the clock and, in one instance, a private conversation had been recorded and later was broadcast over the local television network. Here again, the only recourse to privacy was the use of the Tuscarora language.

It was during their controversy with the State Power Authority that I first became acquainted with the Tuscarora Indians and, in working with them on various problems, developed an interest in their language. It has been the continuing though hitherto unfulfilled hope of many of the tribe that they might have their language preserved in written form for the benefit of the present and future generations. This is one way, they feel, they can be assured that knowledge of the native tongue will not die out. Because of our mutual interest in the language, therefore, I have been working with several informants to produce a pedagogical grammar and primers in Tuscarora for the use of the tribe. The cooperation of the informants has been good and even enthusiastic, for they have a keen sense of the value of preserving their language. Non-informants have also shown an interest and have anticipated the completion of the work so that they may have a copy for their own use.

Very little work has ever been done on the Tuscarora language. Some early investigators collected wordlists and a few of these have been published. A brief text with translation was published more recently in the *International Journal of American Linguistics.* The largest amount of lexical, grammatical, and textual material was gathered by J. N. B. Hewitt over a period dating from 1880 to 1923. This material has lain largely untouched in the Smithsonian Institution since Hewitt compiled it but now is being used as an additional source for the Tuscarora language project. Even in the 85 years since Hewitt first began his collection of Tuscarora linguistic data, however, there have been significant changes in the language. The Hewitt material must consequently be checked against current usage.

Whether a formal grammar and a set of readers will fulfill the Tuscaroras' wish to preserve their language cannot be ascertained at this point. What these resources *will* do, however, is provide a systematic means of study and a standard orthography of Tuscarora. It is hoped that it will thereby be made easier for future classes to persevere and to master the fundamentals of the language.

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Tyendinaga Acculturation

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Although all Iroquois Indians have been greatly influenced by modern western culture, the kind and amount of this acculturation is not the same on the various reserves. Thus, the acculturation of the Tyendinaga Mohawks, a little-known group living in the Province of Ontario, may be of some interest to students of the Iroquois. Tyendinaga Indian Reserve is situated in Hastings County, Province of Ontario, Canada. Approximately 900 Mohawks reside more-or-less permanently on this 17,000 acre reserve. One thousand other Mohawks, while included on the Tyendinaga Band Membership List, live scattered in such cities as Oshawa, Toronto, Buffalo, and Detroit (Band Council n.d.). This Mohawk Band came into being as a separate socio-cultural grouping during the American Revolution when, under the leadership of Captain John Deserontyou, some 100 Mohawks decided to settle on the Bay of Quinte independently from Mohawks and other Iroquois groups which eventually took up residence on the Grand River in Ontario (Cruikshank 1930; Herrington 1921; Torok 1965).

The salient characteristics of Iroquois conservatism have been outlined in some fairly recent studies and the populations of various contemporary Iroquois reserves have been classified into progressive and conservative categories (Fenton 1965; Noon 1949; Shimony 1961; Voget 1951 and 1953; Wallace 1951). Characteristics of Iroquois conservatism, as suggested or implied by these authors, may be summarized as follows:

1. The use of the native language in ceremonial and familial contexts.
2. Participation in the activities of Longhouse congregations.
3. Some retention of clan affiliation, this retention being a function of religious or political affiliation, or of both.
4. Support of the traditional hereditary political system.
5. An affirmation of Indian self-identity.

Taking these five points as referents of conservatism, the Tyendinaga situation of 1964-65 may be summarized as follows:

1. Mohawk is no longer a primary language at Tyendinaga. Some persons claim that they can speak Mohawk, but the language of communication in private and in public is English. Occasionally Mohawk words may be used for greeting a fellow Band member, but sustained conversations in Mohawk do not seem to take place. The Anglican (Episcopal) church choirs sometimes sing Mohawk hymns but it is expected that even this practice will soon disappear since members of the choirs and of the congregations do not understand the meaning of the Mohawk texts.

2. There has never been a Longhouse congregation at Tyendinaga. Informants claim that one man "was converted to Longhouse" while working in the United States, and several reported that they had been present at Longhouse ceremonies held on the Six Nations or on other Iroquois reserves. No proselytizing for Longhouse, however, occurred at Tyendinaga. About 75 percent of the Band membership is reported as being "Anglican," and about 15 percent as "Pentecostal." A few belong to the "Jehovah's Witnesses" and one man considers himself "Bahai." The concensus of opinion of ministers of religion and of informants is that there has been a gradual secularization during the last two decades so that most church members today should be regarded as "nominal adherents" of their denominations.

3. There is an awareness that at one time there existed three clans among the Tyendinaga Mohawks, and some individuals can place themselves and members of their nuclear families into the appropriate clans. Many individuals, however, do not know their clan affiliation and some, probably a small minority, are not even aware of the one-time existence of clans.

4. There has been an elected Band Council at Tyendinaga since the 1870's. Until about the late 1930's a vestigial hereditary council, a sort of "shadow government," also survived, but by now its "life chiefs" have died out. Its jurisdiction was never acknowledged by the Canadian Government following the coming into being of the elected council. At the time of the fieldwork only one individual claimed to be a "life chief" and he reported that some of his fellow life chiefs, recognizing the impotence of the hereditary council, "turned away from the Mohawk way and followed the Ottawa line," i.e., they ran for office on the elected council. Thus, in the 20th century no organized opposition has been offered to the principle of

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[1] I wish to express my thanks to the Canada Council, whose financial assistance made my field research possible.

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elective representation. The political life of this reserve is centered around the elected council of four Councillors and one chief. Every 2 years resident Band members who are 21 years or older, men and women, vote for their candidate to the council. Candidates to the council are selected by the two political factions that become socially visible 1 or 2 months prior to each election. These two factions, the longhairs (or conservatives) and the shorthairs (or progressives) hold their meetings in private homes prior to council elections. Each faction elects from among its members five individuals whom it endorses as representing the interests of the faction in the coming elections. Once endorsed, the candidates run for council in the Band elections.

It is difficult to draw a neat distinction between these two groupings and their ideologies. A shorthair might characterize his longhair opponents as: "Longhairs are old-fashioned. They want the government to do everything for them. They are scared to try to do things in a new way. Some of them have little or no education." On the other hand, a longhair politician might say something like this concerning his shorthair counterparts: "They have new-fangled ideas. They are selling out to the government. They do whatever the agent tells them to do. They are white man's Indians." To use two catch-phrases: the longhairs seem to be more "treaty-oriented," while the shorthairs are more "goal-oriented." The following illustration (a number of others could be mentioned) may make the meaning of the above phrase clearer.

Small-game hunting is an important form of recreation on the reserve. Men of all ages, as well as some girls, shoot water fowl, rabbits, and occasionally deer. One of the recent shorthair-dominated Band councils noted that water fowl shooting was getting progressively worse on the reserve. They interpreted this as being due to two factors: year-round, unrestricted hunting of ducks on the one hand, and the gradual drying out of a swamp on the other. They passed a bylaw which established a closed season for water fowl and which provided for the preservation of the swamp area by the building and maintaining of a dam. The closed season on duck hunting thus introduced paralleled the regulations of the Ontario Provincial Legislature.

The longhair reaction to these innovations was entirely negative. Longhair politicians pointed out that provincial hunting regulations do not apply to Indian reserves and they blamed the shorthair councillors for voluntarily introducing restrictive hunting regulations on Indian land. Here the longhairs were concerned with a traditional, or "aboriginal," Indian right: namely, the right to hunt on their own lands whenever they desire. The shorthairs, on the other hand, were concerned with making recreational hunting more rewarding in results. As the shorthair initiator of this legislation later said, "The old treaties and aboriginal rights did not bring ducks and geese back to the reserve; this duck preserve will."

It must be emphasized that while there are two political factions at Tyendinaga, both groupings work within the political framework provided by the elective council system and neither challenges the principle of elected representation.

5. Among the Tyendinaga Mohawks, the feeling of "Indian self-identity" is marked by ambivalence. On the one hand, informants tended to stress the near or total identity of Tyendinaga customs with those of the whites. When asked for information informants would say, "We do things just like the whites," or "none of the old customs have survived." They would stress the achievement by their fellow Band members of the goals held by the dominant Euro-Canadian society. On the other hand, expressions affirming "Indianness" also were voiced. Mohawk life prior to the coming of Europeans is believed to have been morally superior in some respects to that of the whites. "Indians did not lie. They helped each other. They were peaceful until the white man started them fighting." Informants would also express the opinion that Canadian Indians, in general, and the Mohawks, in particular, have been cheated and abused by the whites. On several occasions members of the Tyendinaga Band wrote letters to daily newspapers to correct or dispute statements printed on Indian problems.

To paraphrase Tyendinaga statements: We have been successful in competing with the white man; we live just like whites. We are as good as they are although they have often cheated us out of our rights. We live like whites, yet we are Indians.

Having briefly examined Tyendinaga with reference to five characteristics of Iroquois conservatism, the conclusion can hardly be avoided that Tyendinaga seems to be a more highly acculturated reserve than Six Nations, Caughnawaga, and the New York reservations. A conservative grouping which identifies with the Longhouse religion, uses the native language, accepts the principle of hereditary political leadership and utilizes clans just does not exist at Tyendinaga. Indian self-identity is maintained, but expressions of it tend to be ambivalent.

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Notes on the Onondaga Bowl Game[1]

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The Iroquois Bowl or Peach Stone Game, known among the Onondaga as *kayentaʔ*, is one of the Four Sacred Rituals said to have been taught to the people by the culture hero, Dekanawidah.[2] The other three rituals are the Great Feather Dance, the Skin or Drum Dance and the Personal Chant of Thanksgiving. Although these rituals have been described in the literature (see especially Kurath 1964, Chafe 1961, Speck 1949, Shimony 1961, and Beauchamp 1907), there is still much to be learned about them,[3] particularly about the variations in practice between Longhouses and within each Longhouse itself. The Bowl Game provides an example of such variation—the forms of the game and the occasions on which it may be played are not always identical among the various Longhouse communities.

The Bowl Game is a game of chance played between two opposing sides. The game involves shaking six peach stones, each burned black on one side, in a bowl. If all the stones fall with the same color up or if all the stones except one fall with the same color up, the player scores and has another turn. If he scores on this second try, he has a third, and so on. When he fails to score, the opposing side takes its turn. The game ends when all the counters used in the game have been won by one side. The game is always played with six stones. These are shaken in a bowl by hitting the bowl against a bench or else the floor, which causes the stones to jump and constitutes the "throw" of the peach stones. Although the game is always played between two sides and the scoring throws are always those four mentioned, there are variations in the scoring system, the kind and number of counters used, the kind of bets placed, and the teams or "sides."

The Bowl Game is an old game in Iroquois culture. Not only is it old traditionally (it was said to have been taught by Dekanawidah), but it is also mentioned in earliest historical documents on the Iroquoians. Most important of these documents are the Jesuit Relations, in which this practice is called "the game of dish." Le Jeune (JR 10: 187), for example, described the Bowl Game in 1636, when he wrote that among the Hurons:

> This game is purely one of chance: they play it with six-plum stones, white on one side and black on the other, in a dish that they strike very roughly against the ground, so that the plum-stones leap up and fall, sometimes on one side and sometimes on the other.

It seems likely that the game was played with plum stones in the 17th century as Le Jeune asserts, since peaches are a European-introduced fruit and the game could not have been played with peach stones.

In these early documents, only one function is attributed the game: it was played to cure an ill individual, as indicated by a dream of a sick person himself or by prescription of a shaman. But among the Onondaga, the Bowl Game is now not only played to cure a sick person, but also as an agricultural rite in the Planting, Green Corn, and Harvest Ceremonies, and as a renewal rite, the dominant theme of the Midwinter Ceremony. It is also played in response to a dream and often at a wake. In addition, it is reported that this rite may be performed to satisfy a charm at the Sour Springs Longhouse in Canada, although this is not Onondaga practice. It may also be played for reasons of friendship as well as during Midwinter to renew ritual friendship, although this too is not Onondaga practice.

On certain of these occasions, the men play against the women and on other occasions, the game is played between moieties. These moieties are groupings of clans. The Mudhouse moiety (*deyhoditáygɛh*, *"twin chimneys"*) of the Onondaga is composed of the Hawk, Deer, Eel, and (now extinct) Bear clans; and the Longhouse moiety (*gaye-*

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[1] I am indebted to William N. Fenton, who read my notes on Onondaga Ceremonialism in 1956 and pointed out to me that much of my material was new to Iroquois literature. He further encouraged my training in anthropology and has recommended the support of some of my field trips under the terms of a Graduate Student Honorarium from the State Education Department in 1962 and as a Science Research Aide in Ethnology for the New York State Museum and Science Service in 1964 and 1966. A note of thanks also goes to Mr. F. Parisi of the Mathematics Department at New York City Community College for working on the mathematical probabilities of this game. Finally, I wish to thank two of my major informants, Rose Green and Al Thomas for their patience in going over words and phrases in the Onondaga tongue so that I could transcribe these.

[2] This tradition is also recorded by Speck (1949:128).

[3] Perhaps most in need of further study are the Individual Chants adqwen. Taped collections of several scores of these from various Iroquois Reservations might reveal patterns and themes. The work, however, would be most demanding as a study for linguists, for the chants undoubtedly contain many archaic words and concepts.

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hodinoskeʔ, "four house corners"), of the Wolf, Turtle, Snipe, Beaver, and (now extinct) Ball clans. The English names of these moieties are taken from the houses (Mudhouse and Longhouse) into which the people separate for the first part of the Midwinter Ceremony.

The game when played on the eighth day of the Planting, Green Corn, and Harvest Ceremonies, and the fourteenth day of Midwinter (which corresponds to the eighth day of the other ceremonies) is a sacred agricultural rite. On all of these occasions the game is propitiatory to the sun, which is recognized by the Onondaga as an important natural force and a spirit force vital to the successful growth of the crops (and in former times to the very survival of the people). The ritual leader announces the rite: *danegoʔ hya:ngɛ, kayentaʔ, nahaya:takwɛniyɔk nɛhɛtwa'xah:, ʔɛnte:'kha:ʔ kay:hkwa:ʔ*, "And so indeed, the Bowl Game, in honor of our Great Warrior Brother, the Sun!" It is perhaps noteworthy that the speech which mentions the sun in the Skinn Dance is the fourteenth in a consecutive count of the 18 sections recited at the Onondaga Longhouse.

> Thanks to the Sun, our Great Warrior Brother, who has caused warmth on the earth, and shines down so that the things that have been created will grow in a healthy manner; and that he should not give off excessive heat which would be injurious. *He also controls the seasons by moving himself in the heavens.* This authority was given to him by the Creator and has been maintained all this time.[4]

Although the Iroquois today accept the modern heliocentric view of the universe, they once held a geocentric one, and it is this older conception of the world that is retained in the cosmology. Nevertheless, why the Peach Stone Game in particular should be associated with the sun is unknown, and thus far mythological rationale for this tradition is lacking. We can, however, marshal many facts to support the position that the Bowl Game complex is replete with agricultural symbols. All the fruits and crops are dependent upon the sun for "growth in a healthy manner." To illustrate: the bowl with which the game is played is carved from the heart of an apple tree, not from the softer, more easily shaped basswood, the traditional favorite of Iroquois mask makers. Craftsmen point out that a large burl or knot is removed whole from the apple tree and hollowed out in the shape of a bowl with a flat bottom and sloping sides.[5] Scoring is determined by the face-up pattern of six smoothed and rounded plum pits or peach stones. Beans are utilized as counters during the agricultural rites and on the fourteenth day of Midwinter.

During the Midwinter Dream Guessing Rite—that part of Midwinter in which the dreams of various individuals cast in the form of riddles are guessed by members of the opposite moiety, a dream of a Bowl Game is symbolized by guesses of "sugar" and "corn" (Blau 1963:243). The sugar referred to *owenɔweʔnta*, is the maple sugar obtained from the sap of this tree (Parker 1910:104) which is characterized as the "major tree in the forest." The maple syrup was gathered in the early spring and used as a sweetener on traditional Iroquois foods.

The Bowl Game itself is frequently regarded as predictive of the relative bountifulness of certain fruits or crops. On the fourteenth day of Midwinter, the men of both moieties play against the women, while at other times moiety rivalry is the rule. If the men win, it is believed that the pumpkin crop will be large. On the other hand, should the women prevail, they say that there will be an abundance of berries in the summer to come.[6] Anciently, berry picking was exclusively a female activity (Parker 1910:98), but it was not uncommon for men to help in harvesting the sustaining foods and crops (Parker 1910: 31). This prediction, therefore, reflects a simple division of labor no longer commonly operative.

The entire concept of a game as a sacred rite is often misunderstood, for although the playing may be enjoyable and often generates excitement among the participants and observers, it is in reality a religious act which dramatizes the struggle of the fruits and crops to attain maturity in spite of natural elements which are not always favorable. This is a recurring theme among sedentary horticulturalists, often enacted in song, myth, and ritual. Thus, when peach stones "turn up right" during the game, it is symbolic of a fertile field and an abundant crop. The Onondaga believe that a beam of light (*dɛganiyɔ skɔ'daʔ*) from the sky shines onto the bowl when the game is played and that the Sun himself determines the pattern of the peach stones. This spiritual conception of the game reasserts the importance of the Sun for the growing crops; for just as the Sun influences the success or failure of agricultural pursuits, so too, does his "beam of light from the sky" determine the success or failure of a player during the game. Whenever the game has an agricultural function, small, round bread-cakes representing the Sun are stood on edge along a bench overlooking the game.

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[4] Translated by Chief George E. Thomas.

[5] Dick Webster, an excellent Onondaga craftsman, has been commissioned to carve Bowl Game Sets on many occassions. He always selects fruit trees, but indicates that the apple tree is preferred because of the beautiful grain which runs through the wood in alternate light and dark patterns.

[6] Some people say that years ago the sexes played against one another on the eighth day of the Planting Ceremony and that this, too, was a predictive game.

The Bowl Game also may be played to cure a sick person. A clairvoyant, one who can ascertain the cause of illness, will frequently advise playing the game as a curative rite in the home of the patient or dreamer to "cheer up" the ailing individual. When this dream is renewed at Midwinter or guessed to prevent recurrance of the illness, an alternate acceptable guess to the food symbols of "sugar" and "corn" is *gaystaʔ*, "cheers." This refers to the cheering up of the patient as well as to the shouts of encouragement heard during the game. Special carved counters and figures may be made for a curative Bowl Game either to be destroyed at the conclusion of the rite or to be kept as mementoes by the patient. When a Bowl Game dream is guessed, food (sugar or corn) or a miniature bowl game charm set is presented to the dreamer.[7] The specifics of a curative rite vary with the diagnosis of the clairvoyant and the dream or wishes of the ailing person. It is quite permissable to use beans as counters, or to play some esoteric form of the rite.

At Onondaga Reservation, where moiety factionalism may result in mutual suspicion of witchcraft, a curative rite may be played by members of the patient's moiety alone. In cases of this nature, the men play against the women. A cure is not effected by one side or the other emerging victorious, but rather by the degree of excitement generated during the game. "The harder you play, the better the medicine." The ideational pattern for curative games and medicine society practices calls for reciprocity of the dual organization, and the majority of games or "singing for medicine" are cooperative functions which include members of both ritual houses.

The Bowl Game may also be played at a wake. The Delaware Mocassin Game as introduced by the late Percy Smoke, a Cayuga ritual singer from Canada who resided at Onondaga, New York, is also occasionally performed. In addition, the traditional Iroquois Deer Button Game may be favored in this connection. The choice is made by the individual who runs the wake, but family preferences are generally considered, especially if the deceased was inclined towards one of these games or was known to have had a dream associated with any of these. The game functions primarily as a device for staying awake and keeping the vigil throughout the night. Any special counters made for the game on the occasion of a wake are thrown into the fire at dawn. The Deer Button Game is not played with a bowl, but the eight "bones" are hand thrown onto a blanket. There are 200 beans or 20 fields of 10 beans each which are equally distributed among the players. If one of the eight bones turns up differently from the others it is *oyɔʔah*, "a bird," and is valued at four beans. Two up differently is *oniyɔsah*, "a pumpkin," and is valued at two beans. Eight of a kind constitute "a field," *ɔhɛnda*, and this is valued at 20 beans. At a wake, however, beans are not used as counters, but strips of cloth are substituted. It is interesting to note that these strips of cloth may be any color except black.

Shimony (1961:228) states that the Bowl Game may be played to satisfy a charm owned by the sponsor of this rite. This form of the game is not played at Onondaga, although charms of this nature are possessed by many individuals. Variant counters are utilized at the Six Nations Reserve. Tobacco is burned prior to the rite by the sponsor who wishes to pass such a feast while informing the charm of his real intentions. This has the effect of changing an ordinary game into an instrument of witchcraft. Shimony (1961:28) reports that:

> The bowl and dice and method of play as well as the moiety division and pairing of bets, are as in the standard game, but scoring is managed by a male scorekeeper who sticks the carved wooden pegs into two pots of soil. (Down below there is a version with one pot). The counters consist of the following: six pegs about five inches long, six shorter pegs, six animals—two eels and two different pairs of lizards—a man, a woman, a penis, and a log (gaõnda). These are evenly divided among the players. If the patient is a woman, her moiety has the woman and the log, and if a man, his moiety has the man and the penis. The Wolves always draw the short pegs. Although inquiry was made of three scorekeepers, a coherent set of rules could not be ascertained, and all three versions were different. Even when the writer participated in the game, the scoring seemed completely random and there was an obvious amount of indecision and variation between each move.

It may be of some interest also that Speck (1949:144) asserted that neither Deskaheh nor any other officer of the Sour Springs Longhouse was sufficiently acquainted with the scoring intricacies of the home curative bowl game to explain it.

The first Bowl Game I witnessed was at the Onondaga Reservation near Syracuse, New York, in 1953. It occurred on the last day of the Harvest Dance and was a performance of the game as an agricultural rite. Friends of the Mudhouse moiety invited me to place a bet on the outcome. When they won, I received a neatly pressed blue and white handkerchief that had been "tied together" or matched up with the pipe offered in wager. Almost any small item is acceptable as a bet, but cloth, beadwork, and tobacco are the prevalent categories. The conspicuous absence of glassware and money during the agricultural ceremonies is a carryover from the sanction against betting these items in the more elaborate Bowl Game played during the fourth, fifth, and sixth days of Midwinter Rites. Only objects for use "in heaven" may be placed as bets in this Midwinter Game. This precludes money and glassware as well as items generally associated with white manufacture. Curiously, wool felt costume cloth is now acceptable as "Indian," since this was a major item in late 19th century Iroquois regalia.

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[7] See Blau (1963) for a description of this Dream Guessing Rite held during Midwinter.

When the Bowl Game is played as an agricultural rite, one player from each moiety team sits astride a bench in the southeastern section of the Longhouse (figure 1). The players face each other with the bowl placed between them. They play by shaking the bowl in turn and setting it down hard on the bench which is usually covered by a blanket. There are two possible ways to score. If the peach stones turn up with the burned black side or plain side showing all of a kind, it is counted as five points. If all but one turn up black or plain, it scores as a single point, *oyɔˀah*, (Fig. 2). All of a kind is called "a field," *ɔhɛndaˀː*, and is indeed symbolic of a planted field.[8] Whenever a player scores, he may "throw" again. Otherwise, the players alternate in striking the bowl against the bench top. Each point scored is tallied with beans which are held by female custodians representing each moiety. Each custodian has fifty beans, and the object of the game is to win all the beans from the opposing team. As the game vacillates between the teams, most of the one hundred bean total may be brought into play. To start, the custodian from the Longhouse moiety places ten of his fifty beans aside for the first "round." The Mudhouse moiety custodian does likewise. The beans as won are placed in the pockets of other representatives, alternate custodians. The first team to score 10 points wins the first round and 10 new beans are put aside by the opposing custodian. It is quite possible that the winner of a given round has lost some points, although not all 10. In this case, new beans are added to the pile before the next round to bring the number up to 10. Between rounds, the bowl is turned upside down on the bench to indicate that the game is not in play, and the losing team of the last round furnishes a new challenger to face the winning player, who remains seated. After the 50 beans held by the first pair of custodians have been used up (once the first 5 rounds have been played, most of the beans are in the pockets of the alternate pair of custodians), the alternate pair of custodians replace 10 or replenish a pile to equal 10 as the case requires from their stock. The game continues in this manner until one team has won all 50 beans from the opposing team, while retaining possession of its own 50 beans (that is, until they have won all hundred beans being used as counters). In fine, the game is not merely won by the first team to amass 50 points but by the team who has, in addition, won back all the beans its opponent held in temporary custody.

As the game progresses, the excited observers cheer on their players shouting *ˀowesˀ*, "more," or once again," after a successful throw, or *hənyoˀ*, "come on," as an idiom of encouragement. The observers frequently pat the shoulders of a winning player in praise, as they stand behind him observing how the peach stones fall. A zealous observer may wave his hands over the bowl and shout "*shaaa*" before the opposing player throws. This is the equivalent of a jinx and is intended to confuse the player and perhaps control the turning of the pits. At no time is the bowl touched by anyone other than the players. The game is essentially one of chance, but some individuals have earned reputations as good players or high scorers. There does seem to be *some* skill involved in turning an all black field over into an all white field, or vice versa on the succeeding throw, although it is doubtful that practice takes place to perfect this. It has been observed that players who are not scoring well shake the bowl and set it down more violently than do players who apparently are doing well and may not want to "upset their luck." Playing the deer button game, which is quite similar, as a leisure time activity in the private homes may tend to develop certain skills or attitudes applicable to the Bowl Game.[9]

Somewhat different than the game played on the fourteenth day in the Bowl Game as played on the fourth, fifth, and sixth days of Midwinter. Carved sticks are used as counters rather than beans. Also, figurines are used as mnenomic devices in keeping score, and matchsticks as master counters (the latter, however, are not publicly displayed). A throw of a "field" counts three rather than five points, and two consecutive throws must be scoring ones for the points to count. Bets may only be objects for "use in heaven." The game is played in the west half, not the southeast corner of the Longhouse, and is played on 3 consecutive days, rather than on 1 day only.

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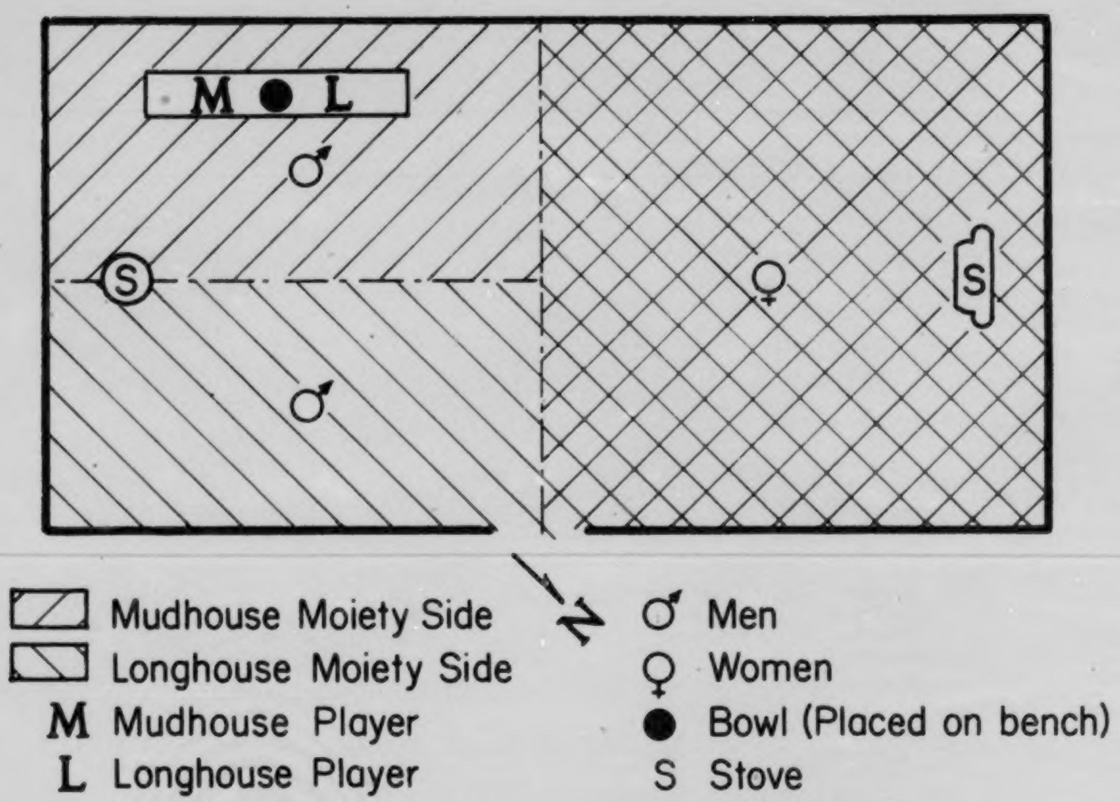
[8] The same word is used when referring to a section of land as a field.

[9] Frequently just picking up a "bone" and dropping it without shaking it in the hand yields a bone falling in the same way as in the previous "throw." In the Bowl Game, this same result may be accomplished by rather gently placing the bowl down so that the stones rise only slightly into the air and so land again as they did on the previous "throw." In this way, if the player scores once, he can rather easily, but not infallibly, score again.



M
L
S
S
▨ Mudhouse Moiety Side
▧ Longhouse Moiety Side
M Mudhouse Player
L Longhouse Player
N
♂ Men
♀ Women
● Bowl (Placed on bench)
S Stove

Note: When women play, they cross over to the men's side.

Figure 1. Bowl Game Arrangement during Agricultural Festivals

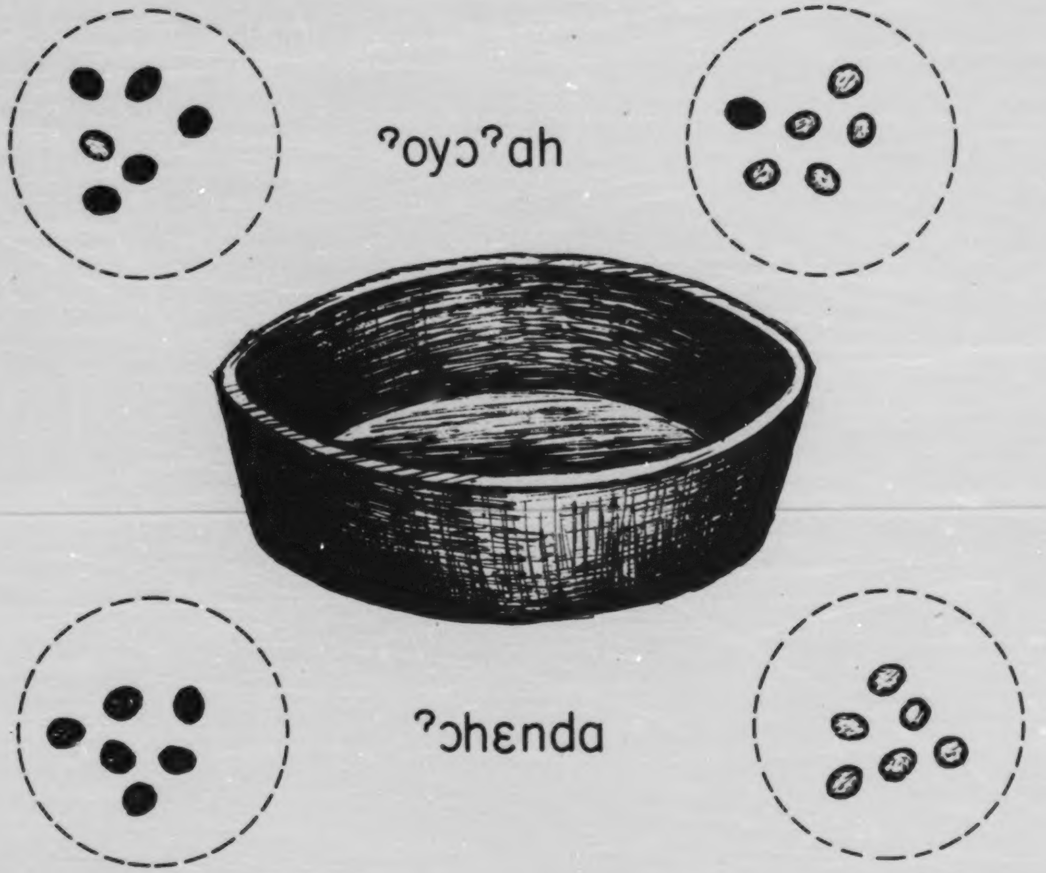

ʔoyɔʔah
ʔɔhɛnda

Figure 2. Scoring System for the Bowl Game

Further, before this game is played in the Longhouse, the secret counterpart of the Bowl Game is held in a private home for members of each rival moiety. These secret meetings occur only during the Midwinter Ceremony, when the game is played on the fourth, fifth, and sixth days in the Longhouse. They are held on the evening of the fourth and fifth days of play to create effective magical control on the outcome of the game. I first became aware of these secret meetings while a guest in the home of the late George E. Thomas in 1955-56, for they are not described in the literature on the Iroquois. They are, however, remarkably like the Huron meetings Le Jeune (JR 10:189) described in 1636:

> There are some who fast several days before playing: the evening before, they all meet together in a Cabin and make a feast to find out what will be the result of the game. . . . they choose, to handle the dish, someone who had dreamed that he would win, or who had a charm. . . .

This was not an isolated incident, for in 1639 the same writer (J.R. 17:203) described proceedings which seem to indicate that it was a well-established practice.

> They assemble at night, and spend the time partly in shaking the dish and ascertaining who has the best hand,—partly in displaying their charms, and exhorting them. Towards the end they lie down to sleep in the same cabin, having previously fasted, and for some time abstained from their wives,—and all this to have some favorable dream; in the morning, they have to relate what happened during the night. Finally, they collect all things which they have dreamed can bring good luck, and fill pouches with them in order to carry them.

Today at Onondaga, each team congregates in the home of one of its prominent members. The specific time of the meeting, the place, those attending, and the ensuing program are supposedly unknown to the opposition.

As I had been adopted into the Eel clan, my observation of the secret meetings in 1956 was restricted to the meetings of the Mudhouse moiety. Nevertheless, my Longhouse moiety informants corroborate that the basic pattern of this meeting also obtains for the meetings they hold. The meeting is called *ˀehunyak*, meaning "they eat berries." This title probably alludes to the preferred food to be served at the feast. This year, the Longhouse moiety feasted upon canned preserved berries, but the Mudhouse moiety substituted broth as its source of power. There is no doubt that the food offered is a source of power and, hence, kept secret from the rival team. It does not seem inconsistent to symbolically gain "power" from a summer plant's fruit in the midst of winter, for this is a reminder of the rebirth and renewal to come in the spring, a prevalent theme in Iroquois Midwinter ceremonialism.

The purpose of these meetings is to effect an influence over the six peach stones. There is magic to win or to continue winning after the first day's play and countermagic to turn the tide of the contest to your favor. An opening ritual is recited, and this does not deviate from the public Thanksgiving Address or Benediction. A closing ritual prayer (a brief Thanksgiving Address) concludes the meeting. What occurs between these two points varies from year to year. The basic pattern is presented here. First, food is offered by the host and eaten by all. No food may be left over and each individual is responsible for consuming everything offered him by the sponsor of the feast. The peach stones are then exhorted by means of formulae. These are recited in turn by men present who possess charms and know incantations. At the end of each formula the group shouts *hay'-ye-'ye'*, as if to lend its support and collective strength of mind to the incantation. At no point are charms actually displayed; for it is thought that mere possession of them can influence the outcome of the game. If the game has gone badly that day in the Longhouse, a man would be designated to sing a song of power which may turn the game to his side's advantage. One song sometimes chanted is that also chanted to quiet the wind in the face of an impending storm or hurricane. In addition, Fenton (1942:18) mentions this song as part of the dream guessing prelude to the White Dog Sacrifice, and it is believed to be the death chant of The Holder of The Heavens. A different song is chanted at Onondaga, when the ritual leader impersonating the Sky-Holder circles the baskets of ribbons and tobacco, which are regarded as substitutes for the White Dog Sacrifice (Blau 1964:98). The song which the Canadian Onondaga use as a prelude to the White Dog Sacrifice is used by the New York Onondaga for the Bowl Game:

gwenude'e ho yege hegenne, "a voice rises upward"
(repeated)

But this is not the only song to be utilized at this point in the Bowl Game, for there are many possible songs of power. The people simply call this practice *hadoweŋ'deh* "he is singing." At this point in the meeting, the order of players to face the opposing team on the morrow is decided.

One player, usually a male who is credited with a great deal of personal power (or *orenda*), is designated as the anchor man and he remains in reserve should all else fail. He is called in as a last resort to "win back" the game after most of the points have been lost. After the formal aspects of the meeting are concluded, the sponsor reminds members of the team to "watch their dreams" and to report any significant dream the next morning. The following morning, the players meet again at the sponsor's home before they march to the Longhouse. In 1956, one man did indeed have a dream which he reported to the group.

> In my dream, I saw the Mudhouse losing badly. Oren Lyons had to sing that song and George Thomas was called in as the last player. Somehow, George kept winning round after round until all the points we lost were won back. We went on to win the game, without having to replace a player.

Margaret Thomas, George's wife, told the man to bring the blanket from his bed. He left and returned shortly with the blanket. She took the blanket and folded it carefully, carrying it to the Longhouse, as the Mudhouse team followed in single file shouting defiantly. The Bowl Game was to be played upon the dreamer's blanket! This constituted a source of power unknown to the rival moiety. According to tradition, the Mudhouse team enters the Longhouse first. They provide the blanket, the figurines, and carved or notched stick counters. The opposing team, the Longhouse moiety team, throws first, and provides the bowl and dice. Everything occurred as had been foretold by the dreamer. This extraordinary occurrence was not perceived as unusual and the people displayed no real surprise. When the writer expressed his amazement at the actual turn of events, the people simply said, "It happens all the time." Some team members jokingly called the dreamer, *hadɛnk'duk*, "clairvoyant." It may be some interest that the Mudhouse moiety has lost only four games in the last 14 years. Events of this nature must of necessity reinforce beliefs in the predictive value of dreams, and in the dream complex generally.

Formulae, songs of power, charms, and predictive dreams are not the only kinds of Bowl Game magic at Midwinter. Carving of the wooden figurines and notched stick counters may constitute additional sources of power. The figures average 6 to 8 inches in height, are two dimensional, and are often painted or decorated. The counters are carved in the round or are two dimensional and may have a notch or star at the top, which allows the teams to differentiate their pieces. One set of six may have a single notch and the other a double notch (figure 3), or one a large star and the other a small star. Generally, counters average 3 to 4 inches in height and are not completely painted. Since the winning team of the previous year retains its pieces but makes these figures and counters anew for the opposing moiety each Midwinter Bowl Game, there is considerable variation in their appearance. Frequently, one figure is an "Indian" and the other a "White Man" in stereotype. The winning moiety may select or retain the Indian, painted brightly to depict a single feather headress, leggings, breechcloth, and moccasins. The rival team must of necessity accept the alternate figure (the "White Man") as its symbolic piece. Perhaps some Iroquois gain satisfaction in this obvious projection of hostility about the outside world, a sentiment normally guarded but manifested here in a culturally approved manner. The observer, then, witnesses a battle of power with symbolic pieces, an Indian and a white man. The "Indians" have won most frequently in recent years attesting the success of Mudhouse moiety magic.

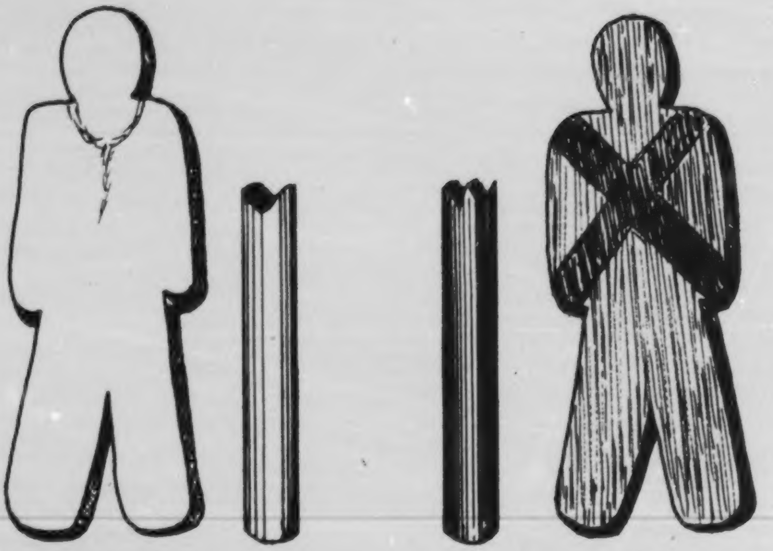
Figures are placed on the east side of the blanket to be manipulated along the edge as the game progresses. Counter sticks are placed on the blanket's west edge to be removed or replaced by female custodians reflecting the score. The game itself is played on a folded blanket with players kneeling and facing each other (figure 4). This Midwinter Bowl Game is a renewal rite for the seasonal cycle and "helps preserve all things." In a sense, it seems to break the grip of winter on the world, restoring life and movement on the earth. As has already been indicated, bets consist only of objects "used in heaven."

Before the teams arrive, a male representative of each moiety burns a small bundle of sticks, *ɔhuŋga*, in the Longhouse stove. These sticks have been tied together and are consumed by the flames as a supplication for success is recited. At this point, no other people are in the Longhouse and the prayers of each representative are offered at different times on this morning of the fourth day of Midwinter so that the two representatives do not meet. The Mudhouse moiety team then proceeds to the Longhouse, followed by the Longhouse team. Each group shouts a challenge as they proceed in single file from the home nearby (where the private meetings were held the previous night). When all are assembled, bets are collected and paired.

An opening ritual prayer, the Thanksgiving Address, is recited alternately by speakers from each moiety. After this, the game is announced. The speaker states that it pleases the Creator to see the people happy and well and that He desires to see their enjoyment as they play the Bowl Game. Since the Creator must ultimately favor one side, bets are to be regarded as a sacrifice, if lost (see above). "Whatever you lose in *kayentaˀ*, you will see it back again in heaven." Therefore, the speaker continues in admonishment, *axgwiˀ eyágat goŋsanéygwɛn*, "don't let it show on your face," if you lose. The game then commences.

In this game, *oyɔˀah*, "a bird," is valued at one counter stick, and *ˀɔhɛnda*, "a field," at three counter sticks. In order to score, two successful throws must be made in *succession*. Thus, there are only three possible scoring combinations:

ˀoyɔˀáh and *ˀoyɔˀah* = two counters
ˀoyɔˀah and *ˀɔhɛnda* = four counters
ˀɔhɛnda and *ˀɔhɛnda* = six counters



Mudhouse Moiety
(LIGHT WOOD)

Longhouse Moiety
(DARK WOOD)

Note: The figurines are approximately 6" high and two dimensional. The carved stick counters are cylindrical and approximately 4" high.

Figure 3. Bowl Game Figurines and Counters

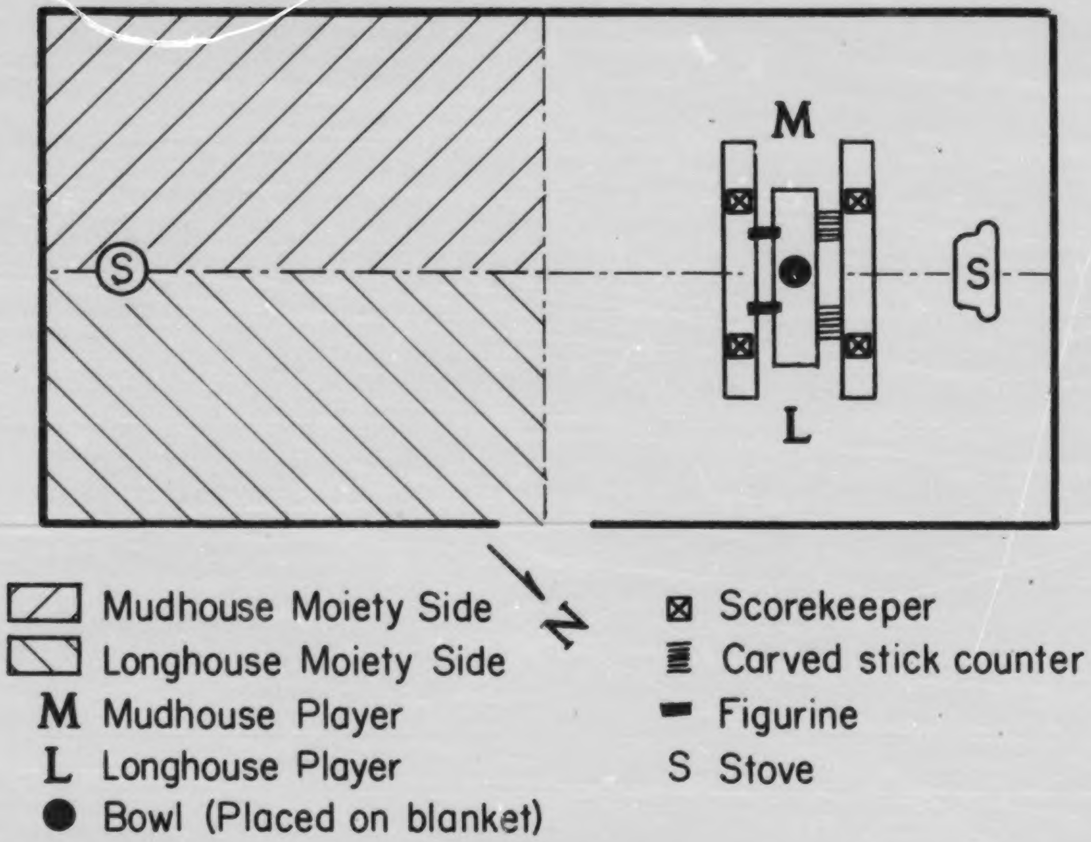

M
L
S
S
N
▨ Mudhouse Moiety Side
▨ Longhouse Moiety Side
M Mudhouse Player
L Longhouse Player
● Bowl (Placed on blanket)
☒ Scorekeeper
≣ Carved stick counter
▬ Figurine
S Stove

Figure 4. Bowl Game Arrangement during Midwinter Rites in the Onondaga Longhouse

Winning six counter sticks constitutes a round and rounds are not continuous. Thus, if two counters have been won and the same player then throws two "fields" in succession, the round is ended and the points amassed above six are not credited to the succeeding round.

As in the form of the game played with beans, all counters must be won in order to win, that is, each team must retain its own set of six counters and win the opposing team's entire set. The play continues until this is effected. After each round, the losing team replaces a player. Between rounds, while the bowl is turning over on the blanket, two men from each moiety sit on a central bench. The representatives of the losing moiety speak first and in unison; "Now that you have won—now we will replace a player. That is all." The representatives of the winning team reply:

onɛndi'ʔi	*gyaʔase:'*	*ungidɛn:'h wagonskodago'ʔųh*
Now	Cousin,	I am lucky that I took you off

(something favored me)

onɛndi'ʔi	*ɛnskɛtsgwayɛnha:'s*	*toh*
Now	you will replace a player	that is all!

The object of the Bowl Game is to win nine master counters, one for each round, which are held by the same two female custodians who sit on the bench as scorekeepers (figure 4). Nine matchsticks are frequently used as master counters and placed in the left pocket for one moiety and furtively handed to the female custodian of the other moiety should they win the round. These counters are passed back and forth between the custodians as the game progresses, reflecting the score, but the score at the end of each day is *not* announced to the congregation. The figurines (figure 3) are moved by male custodians one for each moiety (figure 4) and indicate to those assembled which team has scored successfully. At the start of each new round the figures are in a central position on the edge of the blanket. Each figure is moved to a far position on its own side of the blanket after the first successful throw. If the second throw is unsuccessful, the figure remains at the far position; but if successful, it is returned to its central location. If, after a successful throw, the figure is in a far position from a previous throw it may be moved either still further toward the far edge of the blanket or back to the center. In short, the movement of figures acts as a device for indicating whether or not a double combination was achieved. Longhouse attendance may not be great during this rite, for it frequently occurs on weekdays when devotees are employed at their usual occupations. In practice, the movement of these figurines becomes symbolic and traditional. More often than not, everyone in the Longhouse can manage to crowd around the game in the playing area and observe the peach stones directly. In recent years, custodians for the Mudhouse were Rose Green and Warren Green. Rose has been "sitting on the bench" for the last decade. Custodians for the Longhouse moiety were Susan Thomas and Theodore Thomas. Thus, although there are no required clan affiliations for scorekeeper, the Eel clan has opposed the Turtle clan for many a year.

On the first day, only three rounds are played. At the end of the first day's play there are only four possible outcomes:

Longhouse Moiety	3	2	1	0
Mudhouse Moiety	0	1	2	3

On the second day of play the announcement is made prior to the game, to the effect that all the remaining master counters will be used. Therefore, at the conclusion of the day the scores might theoretically be any combination of nine. Ten possible outcomes are:

Longhouse Moiety	9	8	7	6	5	4	3	2	1	0
Mudhouse Moiety	0	1	2	3	4	5	6	7	8	9

The first score, nine and zero, although theoretically possible, is mathematically highly improbable and has never occurred. The Onondaga say that the game would be stopped *before* this could happen, since traditionally this rite must be played for 3 successive days, and accepting this score as valid would obviously end the game on the second day. The second possibility, eight and one, has not occurred within the memory of my informants by the end of the second day, and also is unlikely. Since both of these are extremely rare, the game would be stopped if a score of seven and two were realized any time on the second day. This score, seven and two, is rare, but *did* occur in recent years, and the game was indeed stopped at this point. The most likely combinations are six and three, or five and four. The game must be played for three successive days. There are no provisions for reducing or varying this procedure.

On the third day of play, the game is played to its conclusion. When one team has but two master counters remaining, they select as their player the costumed male runner from their moiety who will "go around" to stir the ashes after this rite. When he throws, the song of power is chanted as rehearsed at the private meetings. The last player to throw, when one master counter remains on the Mudhouse side, is the man holding the chiefly title of Thadodaho. The Longhouse side, if losing, would select Honowiyextih. Both of these chiefs are credited with a great deal of personal power and would be logical "anchor men" for their teams.[10] If the chief loses, the game ends, since only a single master counter remained when he was called in. It was at this point in 1956 that George Thomas (Thadodaho) won back the other eight master counters without losing a round, in accordance with the predictive dream. It meant scoring a total of at least 48 points (six counters times eight rounds) without being replaced on the third and final day of the game. The mathematical probability of a single player winning eight rounds in succession is 1 in 256!

At the end of the rite, winners collect their bets and *adowɛŋ* are sung to the Creator. This is done one at a time by those who wish to express their thankfulness. After this the ashes are stirred in the private homes by the costumed runners, one from each moiety, who carry decorated hoes and wear many bells. Their cheeks are daubed with red paint in stripes or in the shape of circles or stars. The people are thus reminded to come together that night to renew their old dreams.

These Onondaga Bowl Game rituals differ from the practice recorded for the more westerly Iroquois (that is, of practice at the Coldspring, Newtown, and Tonawanda Longhouses in western New York and the Sour Springs Longhouse on the Six Nations Reserve in Canada—the best-known of the various Iroquois Longhouses). In these more westerly Longhouses, the playing of the Bowl Game in the latter part of Midwinter lasts 2 or more days as it is stopped at noon each day to be resumed again the following morning. At Tonawanda, however, the game now is played to its conclusion on the second day it is played. The basic rules of the game are, however, like those of the Bowl Game played during the fourteenth day of the Onondaga Midwinter ceremony (except that it is played between moieties, not between the sexes). When played earlier in the Midwinter ceremony in these western Longhouses, the game is a shortened form (using five or seven bean counters rather than one hundred, and counting a throw of all one color up as two rather than five) rather than the more extended form as played in the first part of the Onondaga Midwinter Ceremony. Further, the reasons for playing the game in this first part of Midwinter are apparently different. In the New York Seneca Longhouses, the short form of the Bowl Game is played around the houses during the first part of Midwinter, as other rituals—Feather Dance, Skin Dance (there called Thanksgiving Dance), and Women's Dance—go around the houses on these days, as well as rituals in renewal of a dream. In this ritual, the play is between four representatives of the moieties (a man and a woman from each moiety) appointed for this task and the members of the house in which the game is played, or all present in the Longhouse when it is played there. In the western Longhouses, a short form of the Bowl Game may be played to renew friendship on those days devoted to renewal of dreams. In this case, the play is between men and women. The form of the game as played on the fourth, fifth, and sixth days of the Onondaga Midwinter ceremony is not known, at least not to many. This is evidenced by the reported lack of knowledge of the rules of play at the Sour Springs Longhouse.[11]

Although the Onondaga do not play the Bowl Game on certain occasions that it is played in the west (as to satisfy a charm or to renew or establish ritual friendship), the game does seem to be more elaborate among the Onondaga than in the western Longhouses. Not only is there more variation in procedure, including secret meetings of the moieties, but also the game figures more prominently in the important Midwinter ceremony than it does in the west, being played in an extended form in the first part of Midwinter as well as in the concluding portion. The reasons for these differences are not now known, but further study of the Bowl Game might eludicate them.

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[10] These Chiefs are selected because of the political prestige they command and the roles they perform in the Confederate Council. Thadodaho is moderator and chairman of the Grand Council of the Iroquois Confederacy. Honowiyextih has the deciding vote among the Onondaga delegation, who themselves in the council of nations have the deciding vote. It is stated that he may return a decision for further consideration and consultation. Shimony (1961:110) further indicates that he should be wampum keeper for the Six Nations.

[11] I am indebted to Elisabeth Tooker for this comparative material.

COMPARISON OF PUBLIC RITES

	AGRICULTURAL RITE (Sun)	RENEWAL RITE (Creator)
Ceremony	Planting, Harvest, Green Corn, (14th day of Midwinter)	Midwinter
Day	8th	4th, 5th, and 6th Days
Duration	1 Day	3 Days
Bets	Unrestricted	Restricted
Counters	Beans	Carved Sticks
Value of *oyc?ah*	1 Bean	1 Counter Stick
Value of *chEnda*	5 Beans	3 Counter Sticks
Teams	Moieties (Sexes on 14th day)	Moieties
Location of Game	Southeast Corner of Longhouse	Western Half of Longhouse

MATHEMATICAL PROBABILITIES

Bowl Game

These probabilities are valid only if there is no skill involved in the game, and if the peach stones are perfectly symmetrical in shape and weight. The former point may be argued; the latter is most certainly not the case. The table here is offered as a convenient reference to those who may wish to speculate about the game. It is noteworthy however, that the Iroquois have given values to the various scoring possibilities for both the Deer Button Game and the Bowl Game which conform to the table of mathematical probabilities. The fact that there is no discrepancy here underscores the long history of these games and the experience of the people in recognizing the relative degree of ease or difficulty in achieving the scoring combinations.

Probability of 1 white and 5 blacks—3/32
1 black and 5 whites—3/32

Probability of 1 white and 5 blacks *followed by* 1 white and 5 blacks—9/1024
1 black and 5 whites *followed by* 1 white and 5 blacks—9/1024
1 white and 5 blacks *followed by* 1 black and 5 whites—9/1024
1 black and 5 whites *followed by* 1 black and 5 whites—9/1024

Probability of 6 whites *followed by* 1 black and 5 whites—3/2048
6 whites *followed by* 1 white and 5 blacks—3/2048
6 blacks *followed by* 1 white and 5 blacks—3/2048
6 blacks *followed by* 1 black and 5 whites—3/2048

The above are true in reverse as well.

Probability of 6 whites—1/64
6 blacks—1/64

Probability of 6 whites *or* 6 blacks on 1st throw—1/32
6 blacks *or* 6 whites on 1st throw—1/32

Probability of 6 whites *followed by* 6 whites—1/4096
6 whites *followed by* 6 blacks—1/4096
6 blacks *followed by* 6 blacks—1/4096
6 blacks *followed by* 6 whites—1/4096

Deer Button Game

Probability of 1 white and 7 blacks—1/32
1 black and 7 whites—1/32

Probability of 2 blacks and 6 whites—7/32
2 whites and 6 blacks—7/32

Probability of 8 whites—1/256
8 blacks—1/256

MATHEMATICAL PROBABILITIES

Probability of winning 9 rounds in succession $\frac{1}{512}$

Probability of winning 8 rounds in succession $\frac{1}{256}$

Probability of winning 7 rounds in succession $\frac{1}{128}$

Probability of winning 6 rounds in succession $\frac{1}{64}$

Probability of winning 5 rounds in succession $\frac{1}{32}$

Probability of winning 4 rounds in succession $\frac{1}{16}$

Probability of winning 3 rounds in succession $\frac{1}{8}$

Probability of winning 2 rounds in succession $\frac{1}{4}$

Probability of winning 1 round $\frac{1}{2}$

BOWL GAME TERMINOLOGY

This list is not exhaustive, but merely representational of common words and expressions associated with the rite.

kaʔɔŋwa	bowl
ɔdyɛtsheʔ	seeds (pits or dice)
ɔhunŋga	counter sticks
wahahɛnduŋdeʔ	he made a field
waeyoʔoyɔʔah	she killed a bird (scored oyɔʔah)
wahakeʔ iystah gayaʔda	he moved the doll (figure)
wahayuŋ	he killed
waʔeyuŋ	she killed (scored)
watąyeŋ	he bet
deyowdiyɛŋ	they are gambling (playing bowl game)
waeyhɛŋ osaheyda	she placed the beans
wahatgwɛnya	he won
haʔseyu	he scores well
waʔhyądyeŋ	they sat down
waʔcehʔkɛh	did you bet?
waʔnkineyha	we lost
untɛndoyaha	shooing away (jinxing)
hadowɛŋdeh	he's singing

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Huron and Iroquois Residence Patterns[1] 1600–1650

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Although the Iroquois and Huron have been considered exemplars of a matrilineal—matrilocal society in the anthropological literature, a review of the documents leads to the conclusion that the Huron and Iroquois were not predominantly matrilocal, nor did they regularly practice local endogamy in the first half of the 17th century. If matrilocal residence ever occurred with any regularity it was after 1650, and as a direct result of the situation resulting from European contact. However, whether the residence pattern in the first half of the 17th century was patrilocal, virilocal, avunculocal, or something else probably cannot be established from the available data.[2]

This paper is based primarily on statements in the documents on actual household composition, and reports of certain events. In the evaluating negative evidence in these documents, I have attempted to use the known cultural bias of the observers. The French of the 17th century were accustomed to a patrilocal or neolocal residence pattern. Encountering such a pattern among Indians would not surprise them, and therefore (following the apparently universal human tendency to write about exotic rather than commonplace details) it seems likely that they would not mention it if it were the same, taking it for granted and expecting their readers to do likewise. A matrilocal residence pattern, on the other hand, might be just the sort of peculiar custom likely to intrigue readers in the French homeland, so one might expect to find it mentioned in reports, at least occasionally.

For anyone living in a community, residence patterns are rather obvious. Understanding of inheritance patterns would seem to require more knowledge of individuals and their relationship to one another than their residence patterns, and the Jesuits and other 17th Century French observers did note inheritance. Both Champlain and Sagard describe matrilineal inheritance among the Huron (Wrong 1939:130; Biggar 1929:317). LeJeune described matrilineal inheritance among both Montagnais and Huron in 1634, blaming it, as did Champlain and Sagard, on the immorality of the Indians (JR 6:225). Again, in 1641, Le Jeune described matrilineal inheritance of chieftainship among the Hurons (JR 20:215). In view of their interest in and observation of this aspect of social organization, there seems to be no reason why the Jesuits, Champlain, and Sagard should have failed to notice matrilocal residence and no reason for not reporting it if they observed it were a common practice.

Most statements pertaining to residence or household composition in the historical documents, unfortunately, do not clearly discriminate between categories of relatives and thus do not clearly indicate the residence pattern. For example, the statement "this child was taken sick first, his grandmother and mother followed him and in a few days there were four or five of them upon sick beds" (JR 13: 121) could apply equally well to matrilocal or patrilocal residence patterns, or to a variety of other patterns, since the "grandmother" could be a maternal or paternal relative and no other relatives are mentioned. In the literature examined, I found twenty-three discriminatory cases. Of these, ten described a pattern which was clearly not matrilocal; nine described patterns which were probably not matrilocal; three described a pattern which probably was matrilocal, and one described a pattern not consistent with either matrilocal or patrilocal residence. In addition, one ambiguous case is reported which—depending on the translation—could be matrilocal or something else. Seven of these 24 cases clearly indicated village or tribal exogamy. No general statements about residence patterns prior to 1650 were found in the literature.

The nineteen cases indicating that residence among the Hurons and Iroquois was not matrilocal are:

1. One of the few clear statements about residence was made by Father Lalemant in the Relation of 1639 when he described a curing ceremony he witnessed in the Huron village of Ossosane. The ceremony was initiated by the representative of "a woman, born in this village, but married in another, nearby, named Angoutenc" (JR 17:165). The Council of Ossosane agreed that the village

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[2] For the purpose of this paper, virilocal is defined as living in the husband's village or house, but in a separate household from the husband's parents; uxorilocal as living in the wife's village or house but separate from her parents; patrilocal is defined as living with the husband's family; avunculocal as living with the husband's mother's brother.

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would assist in the ceremony, and the woman was brought from Angoutenc by the people of Ossosane. "She was carried upon their shoulders in some kind of a basket, with an escort of twenty-five or thirty persons who were killing themselves with singing" (JR 17:169). A short while after the ceremony, the woman and her young daughter returned to Angoutenc (JR 17:187).

This is clearly a case of village exogamy and a residence pattern other than matrilocal. The only possible explanation congruent with matrilocality would be that the woman's matrilineal family had moved with her to another village after she was born and she had married in the new village. This explanation is unlikely however, for two reasons. First, and probably most important, if a woman's matrilineal kin resided in the same village as she did, what would motivate her to have a big ceremony somewhere else where she might have trouble obtaining the necessary public cooperation? The second reason why the matrilocal residence explanation is unlikely lies in the nature of the cooperation needed to mount a major ceremony of the sort described by Father Lalemant. The process was described by Father Ragueneau in the Relation of 1648. His description makes it clear that a council of village chiefs was always held in such a case to decide whether or not the members of the village should exert themselves for the patient. When a number of sick people all needed ceremonies, Father Ragueneau said "it is impossible to conceive the ambition and intrigue displayed by their relatives and friends to obtain the preference for them because the public cannot pay those honors to all" (JR 33:203). It is highly unlikely that anyone would succeed in getting such ceremonial assistance simply because they had been born in a town, or had once lived there. It almost surely required the presence of a number of close relatives, most plausibly the matrilineal family, to obtain full community cooperation and participation.

2. In the Relation of 1640, Father Lalemant reported an incident also indicating village exogamy and a residence pattern other than matrilocal. A local curer was suspected by the Jesuits of having murdered his wife, and having blamed the Iroquois for her death. Other members of the village in which the curer and his wife were living prior to her death were reluctant to press an investigation because, according to the Jesuits, they feared they might have to "make satisfaction for this murder to the relatives of the deceased [the wife], who was from another village" (JR 19:85).

3. In the same Relation, Lalemant reported that a Christian convert, Joseph Chihoutenhoua said, "when a young woman who lives in her father-in-law's house is invited by her own father to come and spend some months in his house, if he is rich and a liberal man, the father-in-law rejoices in the thought that his daughter-in-law will be much at her ease" (JR 19:147).

4. Further support for exogamy combined with a residence pattern other than matrilocal comes from a report of Father le Mercier, in the Relation of 1637. Father le Mercier said that Anenichiendis (also called Anenkhiondic), a resident of the village of Ossosane and a leading chief of the Bear "nation" had a wife who "was of a strange nation, and spoke a language that I did not understand so well" (JR 13:199). Since he did understand the language, although not "so well," the wife may have spoken an Algonquian language or an Iroquoian dialect and may have been from the Neutrals, a group whose members sometimes married Hurons (JR 27:25). In any case, the wife was clearly an outsider since she did not speak the local dialect.

5. Another incident which would seem to refute the presence of matrilocality was reported by Father Lalemant in the Relation of 1642. Jean Baptiste Aeotahon (also written Aeontohen—the man who later became the second Atironta), a Christian convert in Cahiague (St. Jean Baptiste) had a son who "fell ill, and when he refused ever to allow recourse to be had, in his cabin, to such diabolical remedies [as the local curer] his wife left him, carried the child away from him, and took another husband" (JR 23:227). This would hardly describe the situation accurately in a matrilocal household where the husband, not the wife, would normally leave.

6. Samuel de Champlain, in 1616, described in considerable detail courtship and marriage among the Huron, but he did not mention matrilocal residence. He said that before marriage the girl lived at home and received lovers, but that after marriage she remained with her husband "without leaving him again" and even though neither husband nor wife abandoned their promiscuous behavior, the wife "remains and dwells always in his household, keeping up a good appearance" (Biggar 1929:317).

7. Brother Gabriel Sagard-Theodat, a Recollet missionary who wintered with the Hurons in 1623-24 prior to the establishment of the Jesuit mission there, wrote extensively about his experience. He was familiar with Champlain's works and even may have borrowed extensively from them. But, he had ample opportunity to correct Champlain had his own experience led him to believe Champlain incorrect in his descriptions of Huron life. Sagard says nothing about a matrilocal residence pattern, although he distinguishes between a form of consensual union and true marriage and describes the marriage ceremony in some detail (Wrong 1939:121-123). Sagard's clearest statement about residence was made in reference to an elopement. The girl's parents caught up with the couple and took their daughter back home. This elope-

ment, of course, would not indicate any normal residence pattern, since by definition the couple were not proceeding properly. The incident does not end there, however, because the lover refused to give up. According to Sagard he presented a large catch of fish to the girl's parents and "after this act of valour the girl was given up to him and he took her back to his lodge, and they lived happily together as they had done in the past" (Wrong 1939:124). This is obviously not a description of matrilocality.

8. For at least part of the time, Sagard lived with a man named Oonchiarey (Oonchiarre) whose household consisted of his mother, father, brothers, cousins and nephews. No mention is made of sisters (Wrong 1939: 70, 71). It is conceivable of course, that all of the brothers and Oonchiarey were unmarried and that all of the cousins and nephews were matrilineal orphans, but this seems farfetched. Yet it is the only explanation congruent with matrilocality.

9. A Huron household described by Father Garnier in 1642 is also not congruent with a matrilocal residence pattern. It consisted of Estienne; Madelaine, his wife; Christienne, his mother; Paul, his brother, and Catherine, his daughter (JR 21:287).

10. Another household which sounds more like a patrilocal than a matrilocal one was described in the Relation of 1637. The Jesuits were staying in a cabin at Ihonatiria. In the same cabin lived a chief, Taretande, his mother, his father, his 15-16-year-old brother, another brother, Sononkhiaconc, aged 25-30, and some "little ones." No sisters are mentioned (JR 13:215-223). Once again, to make the situation fit matrilocal residence, one must assume that Taretande and his mature brother were unmarried and the "little ones" orphans, or that through some quirk of mind or custom, Jesuits mention mothers and brothers but not sisters. (It is consistent with French culture to assume that they would not mention wives unless there were some specific reason to.)

Information from the Five Nations Iroquois during this same period is even more fragmentary than the Huron data. It is certainly possible that the Iroquois differed from Hurons in their residence pattern, however much alike they may have been linguistically and culturally. It is equally possible, of course, that the Huron and Iroquois resembled each other in this aspect of culture too.

11. The earliest report that can with any justification be said to refer to the Iroquois occurs in Montanus' *Description of New Netherlands.* Referring to Dutch documents about "a" voyage in 1609 (Hudson's), Montanus described a palisaded village with longhouses occupied by a people with matrilineal inheritance. The report mentioned bride price and stated that, "on the slightest misunderstanding the wife, paid right off, is put by the husband out of doors and she marries another" (O'Callaghan 1851: 126). Once again, it does not seem logical that observers would record matrilineal descent, and bride price, but would miss matrilocal residence. Even if the Indians involved were not Iroquois, this would provide another instance of matrilineal inheritance without matrilocal residence, and thus give support to the possibility of the Iroquois following the same practice.

12. Jogues, who was captured by Mohawks in August 1642, gave only vague descriptions of the families with whom he resided. From various comments about the ones he lived with most often, we learn that his "host" was married and that the mother of the host was living with him (JR 31:83). This is not compatible with strict matrilocal residence. If the Iroquois actually were matrilocal, Jogues' reticence about residence pattern is somewhat surprising, although he was not as good an observer of social structure as other Jesuits.

13. Another household described by Jogues consisted of a man, his grandson, his grandson's mother, and his nephew (JR 28:133; 31:55). In a matrilocal household a man's grandson's mother would be his daughter. In this case, however, the woman in question is never identified as the old man's daughter, nor is he ever called her father. She is referred to as the boy's mother, and he as the boy's grandfather or as an old man. This suggests she was the old man's daughter-in-law.

14. In 1637, Father le Mercier discussed with some Huron chiefs the possibility of marriage between Frenchmen and Huron girls. The Huron spokesman said, "they would be very glad to know what a husband would give to his wife; that among the Hurons the custom was to give a great deal besides . . . 2nd, whether the wife would have everything at her disposal, 3rd, if the husband should desire to return to France, whether he would take his wife with him; and, in case she remained what he would leave her (JR 14:19) on his departure. 4th, if the wife failed in her duty and the husband drove her away, what she could take with her—and the same if, of her own free will, the fancy seized her to return to her relatives" (JR 14:21). Here again the Hurons and Jesuits would have had a good opportunity to comment on the Huron custom if it were different from the French (as they indeed did in the matter of the bride price) but neolocal residence seems to be assumed by all.

15. Jogues indirectly gave some additional information about residence patterns among the Iroquois. In 1646, some time after his escape, Jogues returned to the Iroquois as an ambassador. One of his specific tasks was to secure the return of Therese Oionhaton, a Huron girl who had been captured while returning with her uncle, Joseph Teondechoren, from the Ursuline Seminary where she had

been a student. She had been captured at the same time as Father Jogues (JR 22:269, 275), so by 1646 had been a prisoner some 4 years. When Jogues spoke to the family that had adopted Therese, they told him that Therese "whom they had given in marriage after her captivity . . . would be restored as soon as she should return to their country" (JR 29:55). She was never restored. In 1653, when Therese was about 24 or 25—her age was given as 13 or 14 in 1642 (JR 22:191, 193)—the Ursulines wrote that they had received information that she was "the mistress in her cabin which contained several families" (JR 40:225). If this information were correct, it is not compatible with matrilocal residence, since it is highly unlikely that a 24-or 25-year-old girl could be mistress of a matrilocal household containing "several families," since the mistress of a matrilocal family should be a senior woman—mother or grandmother. However, it is compatible with patrilocal residence; since if she had married an important man with several families dependent upon him, and had moved into his cabin, she then would be "mistress" of the cabin.

There is no indication where Therese's cabin was located in 1653, but in the fall of 1655 when Fathers Chaumont and Dablon were traveling to Onondaga, between the Salmon River mouth (northeast of Oswego) and Oneida Lake, they ran into Therese, whose home was "three leagues distant" (JR 42:81). She had a little girl child in her arms. This was Oneida rather than Mohawk territory, and indicates that Therese was not living with the people who had captured or adopted her unless these people had moved into Oneida country.

16. Another Huron case which appears to be incompatible with a matrilocal residence pattern is reported in the Relation of 1642. Estienne Totihri, a Christian convert, "was attacked most sharply, because the chapel was erected in his cabin. But neither he nor his family wavered in spite of all these threats" (JR 23:135). Totihri responded to the threats of the non-Christians, "Let them kill my mother, my wife, my child and my brothers; after them, the blow that is to give me happiness will fall on me" (JR 23:137). The implication that these were the individuals living in his cabin is clear, since there would seem to be no reason to kill them had they not been in the cabin where the chapel was. A married man's mother and brothers (married or unmarried) would not be sharing his cabin in a matrilocal arrangements.

17. A Huron case which strongly supports village exogamy, but which less clearly negates a matrilocal residence pattern was reported by Father le Mercier in the Relation of 1637. He discussed a robbery in which the perpetrator was a man from one village married to a woman of another. "This wretch, who was no less thievish than cruel, having one day chosen his time, robbed his father-in-law, and carried his booty to his mother's house in another village. Nevertheless, he could not conceal his game so well that suspicion did not rest upon him—with the result that, according to the custom of the country, this father-in-law, using to good advantage his right of reprisal, went and pillaged his cabin, taking all he had, and hardly leaving the inmates enough with which to cover themselves" (JR 13:11, 13). The young thief apparently was not living with his mother—since the statement specifically states he took the booty to his mother's house. He apparently was not living with his wife's family either. Since in a matrilocal household a father-in-law would not have to "go" to his son-in-law's cabin to get revenge. Moreover, in a matrilocal situation, pillaging a son-in-law's cabin would be ludicrous, since it would be one's own cabin and a man would be pillaging his own wife and her relatives—which would certainly complicate the situation. A neolocal residence pattern would seem to fit this statement best.

18. Father Lalemant mentions another incident which would fit a pattern of village exogamy and neolocal or other non-matrilocal residence. In 1640, he visited a woman with a 2-day-old baby. This woman was not a resident but had come to the village especially for her confinement (JR 20:67). If she had been living matrilocally, she would have had to leave her own kinswomen to have her child among comparative strangers. Thus, matrilocal residence is not indicated in this instance.

19. In November, 1634, at Ihonatiria, Brebeuf baptized Joachim Tsindacaiendoua, a man of about 80 who had a married daughter living at Oenrio, a nearby village (JR 8:137, 141). This case would fit village exogamy and virilocal or neolocal residence. To make it fit a matrilocal residence pattern, an explanation of why father and daughter were not living together would be required.

Some cases do not seem to fit any particular pattern or are somewhat ambiguous.

20. One such is the case of a family the Jesuits mention repeatedly from 1638 to 1652, and with whom they lived for a time. In 1638, they said the house contained five nuclear families, but is only possible to identify three of these. One family consisted of Joseph Chihouatenhoua, his wife and his children; another consisted of Teondechoren, Joseph's older brother (who took the name Joseph too, when he was baptized after Chihouatenhoua died), his first wife Anne, and his children (a boy and a girl) (JR 15:89, 103, 105; 19:151; 23:59). A third family, was headed by Joseph's brother-in-law, and invalid wife. This

brother-in-law might have been Joseph's sister's husband, Joseph's wife's sister's husband or Joseph's wife's brother, since the invalid was identified as his wife rather than as Joseph's sister or sister-in-law. At least three nieces, Agatha, Cecelia, and Therese (the Iroquois captive mentioned above), and a nephew, Pierre (JR 15:89), were also living in the household. At least one of these, Therese, was an orphan (JR 23:193). The Jesuits do not indicate whether she was related through the maternal or paternal line. Whatever the precise relationship between all of these people, a married man, his married brother, and a married brother-in-law should not all be living under one roof in either a matrilocal or patrilocal system.

21. There is a report from Father Lalemant in the Relation of 1642 which seems to indicate matrilocal residence but which had some confusing overtones. Father Lalemant wrote of the courage of a Christian "when he saw himself about to be abandoned by his wife and children, in consequence of the persecutions of his mother-in-law, who could not bear to have him in her house when she found that he was a Christian. 'No,' he said, 'I never would have thought that anything in the world could separate me from my wife. We have lived together for fifteen or sixteen years. The five children that we have had seemed so many bonds that would render our marriage indisoluble. . . . She still loves me and I also love her; and nevertheless her mother compels her to leave me, if I do not abandon the Faith' " (JR 23:127).

It seems unlikely that Father Lalemant would quote the Huron man as saying that his wife is being forced to leave him when he would normally be the one forced to leave the house in a matrilocal situation. On the other hand, that the mother-in-law "could not bear to have him in her house" suggests matrilocal residence. However, the original French is ambiguous. The phrase "une belle mere, qui le voyant Christien ne le pouuoit supporter chez elle"—which was translated as "mother-in-law, who could not bear to have him in her house when she found that he was a Christian" could also have been translated, "was not able to stand him in her family (or around her)."[3] With this translation, the case needs no explanation, and fits with a neolocal, virilocal, or even avunculocal residence pattern. Both translations, however, are correct depending on context, and so this report must remain ambiguous.

There are three clear reports of matrilocal residence from the first half of the 17th Century.

22. Father le Mercier, in 1637, trying to save all the souls possible by baptising the dying, ran into difficulties with the parents-in-law of one man. When epidemics started devastating the Huron population, the people began to claim that baptism caused death because of the Jesuit pattern of baptising only people in danger of dying. The parents-in-law of the particular young man in question were determined to protect him. They guarded their son-in-law constantly, but Father le Mercier finally succeeded in his attempt when the father-in-law was away one day and the mother-in-law left to go to a feast (JR 13:245-247). She changed her mind and hurried back, but it was too late, her son-in-law had been baptised. In this case, the man clearly seems to have been living with his parents-in-law, which is consistent with matrilocality.

23. On the 21st of October, 1636, Anerrate was brought back home from the fishing grounds. He lived with his daughter, Khiongnona, who was married and living with her husband, her children, and a sister, who may or may not have been married. Anerrate was from one of the Algonquian-speaking tribes and had lived with the Hurons since infancy (JR 13:133-139). This is another case compatible with matrilocal residence.

24. The third case mentioned was reported in the Relation of 1637. It indicates tribal exogamy and either matrilocal or uxorilocal residence among the Iroquois. A Seneca was captured by Hurons. Before he was put to death, he told Father le Mercier that he had married among the Onondagas so as to be free to wage war on the Hurons after the Senecas had made peace (JR 13:45).

In summary, a review of the published historical documents that describe Huron and Iroquois life and culture prior to 1650 yields a number of cases of households and situations which are consistent with neolocal, virilocal, or avunculocal residence and village exogamy, but which are not consistent with patterns of matrilocality and village endogamy. It is perhaps most significant that two individuals, Sagard and Champlain, observed the Hurons when they were relatively undisturbed by European contact. It may also be significant that Jogues, Bressani, and Therese Oionhaton all had most of their contact with the Eastern Iroquois—Mohawk, Oneida, and perhaps Onondaga—whereas the clearest statement of matrilocal residence during this period came from a Seneca man. One cannot rule out the possibility that the Seneca were matrilocal, but they may well have been unique in this respect.

In light of the evidence presented in this paper, the classification of the Huron and probably the Iroquois as being matrilocal should be revised, at least to the extent of noting that types of residence other than matrilocal have been reported. I would like to suggest that the most customary residence pattern followed by Huron and probably most Iroquois before their culture was seriously disturbed by European contact was virilocal, with frequent village exogamy. Patrilocal, neolocal, or even avunclocal residence patterns are not ruled out by the data from the documents, but exclusive and probably even extensive matrilocal residence is.

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[3] This translation was achieved after discussion with John Mayer, Assistant Professor of French in The Department of Modern Languages at Ithaca College. Still another translation:—"who, seeing him a Christian, could not, in herself, accept it,"—was suggested by Professor Anthony Taras, Chairman of The Modern Language Department at Ithaca College. The author wishes to thank Anthony Taras and John Mayer for their assistance.

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Iroquois: An Etymology

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As William N. Fenton has remarked, "Perhaps no other people in the Americas has had more ink spilled over them than the Iroquois" (Fenton 1940:160), but the meaning of their name has remained a mystery. They had been known to Europeans for nearly a century and a half when the explanation of Father P.F.X. de Charlevoix was printed in 1744. He wrote:

> The name Iroquois is purely French, and is formed from the term *Hiro* or *Hero*, which means *I have said*—with which these Indians close all their addresses, as the Latins did of old with their *dixi*—and of *Koué*, which is a cry sometimes of sadness, when it is prolonged, and sometimes of joy, when it is pronounced shorter (Shea 1866-1872, Vol. 2:189).

As late as 1867 Charlevoix' statement was being quoted without any strenuous objections by students (Parkman 1899: xlvii-xlviii, Note 1), and Abbe Andre Cuoq's etymology 3 years later was little more than a restatement of Charlevoix.[1] Nearly 150 years were required for a written dissent to appear, then Horatio Hale disposed of it with the comment that, "It might be enough to say of this derivation that no other nation or tribe of which we have any knowledge has ever borne a name composed in this whimsical fashion" (Hale 1883:171). Hale himself thought that "Iroquois" came from the Huron language, inasmuch as Champlain learned the name before he had ever seen an Iroquois. He proposed no solution from Huron, however, falling back on Five Nations dialects and suggesting Mohawk *ierokwa* 'they who smoke' and Cayuga *iakwai* 'a bear'. J. N. B. Hewitt denied the existence of *iakwai* in Huron and doubted the existence of *ierokwa* in any Iroquoian language (Hewitt 1888: 188-189). Hale replied to Hewitt's criticism (Hale 1888:290-291), and Hewitt responded with a detailed rebuttal (Hewitt 1891: 217-220). Other explanations derived from Five Nations dialects followed—David Boyle's *karakwa* 'the sun' (Beauchamp 1905:166) and J. O. Brant-Sero's *I-ih rongwe* 'I am the Real Man' (Brant-Sero 1901:166)—but such contrivings seemed rather pointless after Hewitt had pointed out that the French had probably heard a Montagnais word rather than an Iroquois or Huron word (Hewitt 1888:189). His counter proposal was Montagnais *irin* 'true' or 'real,' *ako* 'snake,' plus the French termination *-ois*. William M. Beauchamp agreed that "Iroquois" must have had its origin in the Algonquian languages, but of Hewitt's solution he commented, "This is much better, if not quite satisfactory. . . . The latest Algonquin dictionaries of the eastern nations do not contain Mr. Hewitt's words. The nearest approach to *ako* is *achgook*" (Beauchamp 1905:165-166). Nevertheless, Hewitt (1907:617) reiterated his proposal in the *Handbook of American Indians*, revising the spelling to *Iri*^{n}*akhoiw* plus *-ois* and changing the source from Montagnais to Algonkin. This time W. R. Gerard called the etymology "impossible" and denied the existence of an Algonquian word *akhoiw* 'snake' (Gerard n.d.), but neither he nor anyone else came forward with a Montagnais etymology.

The purpose of this paper is to call attention to a Montagnais etymology which was in print in an obscure journal even before Hale started the controversy, although it was apparently unknown to those who wrote on the subject about the turn of the century and, insofar as mention in the literature may be a criterion, appears to be still unknown. In 1880, Father Charles Arnaud, an Oblate missionary to the Montagnais, wrote a letter reporting on the Mission at Lake St. John, and to this letter he appended explanations from Montagnais of some place and tribal names, including "Iroquois." This letter and its appendix were printed in the *Annals de la Propagation de la Foi pour la Province de Québec* for June, 1880. A few extracts from the letter, including his explanation of "Iroquois," were reprinted in the Annual Report of the Canada Department of Indian Affairs for 1884 (Vassal 1885 Pt. 1: 26-31). Then it dropped from the literature and from the consideration of students. Arnaud had written: "Champlain qui a entendu ces noms pour la premiere fois de la bouche des montagnais, ses alliés, comme il les appela, et avec lesquels il voyageait dans ses découvertes, les a appliqués aux nations dont on lui parlait et a francisé ces noms: Iroquois, irnokué en montagnais, homme redoutable homme à craindre. Je vous ai déja fâit observer que les lettres *l r n se* confondent et qu'on peut trés bien dire irokue: pour homme terrible, redoutable. Cétte nation etait redoutable en effet à toutes les autres" (Arnaud 1180:153).

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[1] Cuoq 1870: 103-104. He proposed Mohawk *iro* 'espece de terme sacramental employé dans les harangues' or 'il est arrive and *kwe* 'hail.'

Arnaud heard *l*-dialects of Montagnais at his missions, so when he cites "irnokué" we may wonder what he was citing. A clue to the identity of this dialect and to the source of Arnaud's knowledge of it is found in his reference to "l'ancien montagnais que parlent encore certains de nos naskapis et dont la pronunciation est presque celle d'ottaouais" (Arnaud 1880:149). It is known that he was acquainted with Naskapis, both strays at the coastal missions and bands in the interior as far north as Fort Chimo and Baie des Esquimaux (Carrierè, 1958:86ff., 102, 104, 111, 112, 114, 116, 119, 120), and it was presumably from one of these groups that he became acquainted with what he called "l'ancien montagnais."

This is an attractive etymology. It has the desired Montagnais origin, and considerable confidence may be placed in Arnaud's authority. At the time of writing the above statement he had lived 30 years with the Montagnais, even being mistaken for an Indian, and the Indians acknowledged his excellent command of the language (Carrière 1958:33-34, 63, 64, 66, 72, 75). His *irnokué* is close to "Irocois" which Champlain probably pronounced [irokwᴇ]. And it is superfluous to document the statement that the Iroquois were terrible to their enemies. Although Hunt pointed out that the invincibility of the Iroquois has been a bit overdone by some writers (Hunt 1940:23-32), the impression they made upon the very Montagnais of Champlain's acquaintance is found in his statement that "The mode of warfare which they [the Montagnais] practice is altogether by surprises; for otherwise they would be afraid, and too much in dread of the said Iroquois . . ." (Biggar 1922 Vol. 1:103). In short, this etymology is so plausible that, had it appeared in a well known journal, it would probably have become the accepted explanation of the name, and the 30-year controversy would not have taken place.

Arnaud's form will inevitably arouse the curiosity of Algonkianists, and satisfying this curiosity will not be easy. To really verify the form we need to know from what dialect of Montagnais it came and to have a full lexion of that dialect. We neither know the one nor have the other. There are several dialects of Montagnais (Michelson 1939), and it is a fair assumption that there were several dialects in 1603. The earliest documentation—about 1625 to 1637—testify to three different dialects in the Quebec-Saguenay region. There is evidence of two subsequent dialect changes in the mission populations—one after 1676 and one between 1782 and 1844[2]. The dialects recorded by Fathers Enemond Massé and Paul LeJeune disappeared, possibly in the epidemic of 1669-1670 (JR 53: 59-61, 77, 123). Early mortality from European diseases was high, and it would not be unreasonable to suppose that losses in mission populations were replaced from healthier bands from the interior or from down river. Thus, while any interpretation must be speculative, it is not unlikely that the later missionary records represent additional dialects which were contemporary with those caught in the early missionaries' small sample.

There will be discontent among Algonkianists with Arnaud's form. He proposed *irnokué* 'terrible man.' This can be resolved into *irno* 'man' and *kué* 'terrible.' It is not difficult to assume a form *irno* in some old Montagnais dialect between the attested *iriniou* of LeJeune JR 7:23, 153) or *irini8* of Father Bonaventura Faber n.d.: 75) and the *ilnu* of the modern Lake St. John dialect (Lemoine 1901:146). Arnaud's suggestion that *r* might be further substituted for *n* to give *irro* appears unlikely, because *r* is substituted for *l* or for *n* when *n* is a reflex of Proto-Algonquian *l*, but the *n* of *irno* comes from Proto-Algonquian *n* which is considered invariable.[3] This is not a serious objection. We can get along with *irno*. The difficulty is with *-kué*, which by elimination must be 'terrible' and, as it stands, must be either a suffix or a word.

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[2] Cooper 1945: 40-43. A brief survey of the Montagnais dialects is in order. Since Truman Michelson's 1912 statement, the several dialects of Cree on one hand, and those of the Montagnais and Naskapi bands on the other, have been regarded as one language. A thorough survey of these dialects has never been made. Michelson published a preliminary survey in 1939, utilizing an initial breakdown into *l*, *r*, *n*, *y*, and *th* dialects, so named for their reflexes of Proto-Algonquian **l*, but he was aware of grammatical and lexical isoglosses cutting across these boundaries. Our knowledge of the varieties of speech north of the St. Lawrence River at the time of European contact is even more limited. It is historically witnessed only by a few pages of prayers, words, and phrases by Gabriel Sagard and Fathers Massé and LeJeune (Massé 1870; Sagard 1866; Wrong 1939; JR 5-7). About 1670 there began at the missions a fairly steady production of vocabularies, prayers, catechisms and grammars which has continued to the present day (Pilling 1891). Of these, two, namely Crespieul's prayers and Silvy's instructions, appear to belong to the same dialect as the writings of Massé and LeJeune—an *r*-dialect about midway between Cree and what we now think of as Montagnais. That is to say, it showed Cree *k* before *i* and *e* (in contrast to Montagnais *c* , Montagnais locative *-ts* (in contrast to Cree *-k*, *ki*), and animate plurals in both Montagnais *-et*, *-ets* and Cree *-khi*. Sagard's material attests a true Montagnais dialect with *c* before *i* and *e*, ("du pain . . . Pacouechigan"). Sagard's distinction between "Canadiens" and "Montagnets" is further evidence that the French came in contact with at least two dialects. Missionary documents beginning in 1678 retained no trace of the Cree-like phonology, and by 1844 works produced in the 18th century were no longer usable at Montagnais missions. Mission Montagnais had become a group of *l*-dialects with other points of divergence from the 18th century writings. We might regard these changes as evolution of dialects with time, but it would probably be at least as realistic to regard them simply as evidence of shifting populations at the mission centers, with accompanying replacement of moribund dialects by others of different provenience. We have no way of knowing the number and nature of Montagnais-Naskapi dialects in the Labrador Peninsula in 1600, nor how many of them were represented in Anadabijou's war party. We know nothing about the Naskapi of Arnaud except that it was an *r*-dialect and was thought by him to be "ancien," which probably means only that it was like some older missionary work with which he was acquainted. Eighteenth century works existed at Lake St. John when Father Flavien Durocher went there in 1844 and were probably still there when Arnaud arrived a few years later. It is entirely possible that all the recorded varieties of Montagnais and Naskapi existed simultaneously in 1600.

-kué appears to be related to the root which C. W. Hockett has reconstructed as "*koq *fear:* only with following *-t or *-o, joined without connective. P[otawatomi] suggests *-wa- or *-we- instead of *-o-; so do the few S[hawnee] cognates" (Hockett 1957:265). And so, we might add, do the cognates from Micmac, Abenaki, and the oldest Montagnais. A form as short as *-kwe* finds no support in the other Algonquian languages. The root alone should be *kwet-*. Adjectival effects in Algonquian are achieved by prefixed uninflected particles or by verbal forms. Arnaud's *-kué* is not prefixed, and, being even shorter than the root, does not contain any verbal endings. At this stage we are faced with a choice of two solutions, neither of them entirely satisfactory: either (1) some Naskapis of Arnaud's acquaintance preserved until 1880 an *r*-dialect extant in 1603 and containing the phonologically and grammatically unique form *-kwe*, or (2) Arnaud, needing an *r*-form for "Iroquois" and knowing that 18th century Montagnais writings showed *r*, and knowing also of the root *kwet-* 'fear,' constructed *irnokué* to fit his need.

Early names for the Iroquois in the lower St. Lawrence region provide partial confirmation for Arnaud's name. In 1634, LeJeune recorded *kouetakiou* 'Hiroquois' at Three Rivers (JR 8:23). In 1695-6, Faber recorded at Tadoussac "k8etatchi8in (perhaps [kwedacwin]) . . . de natn [nation] Huron, Iroquois" (Faber:125). Father Pacifique's modern Micmac grammar gives "*Goetatjioei* . . . avoir l'air terrible; *goetetjg*, les Iroquois" (Pacifique 1939:106). Translating Pacifique's orthography into more usual phonetic symbols, goetetjg is [kwedEc*k*]. The final *-k* is probably the animate plural.[4] The morphene -Ec has the same shape as the diminutive, but here is probably an animate nominalizing suffix cognate with Abenaki *-as* hence *kwedEc* 'terrible animate one.' Faber's word is nearly identical to the Micmac word, the terminating *-8in* being the connective *-i-* and the noun final *-win* 'person.' Faber's extension of the Montagnais name to the Hurons and the likelihood that the Micmac name was applied to the Laurentian Iroquois (Hoffman 1955: 77-79) are fairly good indications that the name was an ancient one for Iroquoian peoples generally. We could bring Arnaud's form into harmony with other Algonquian data by constructing *irno kwedac* and assuming that Champlain's interpreter pronounced this but that Champlain heard only *irno kwe*, a simple communication failure, especially if the strongest stress fell on *kwe;* thus *irno kwekac*. If we assume this, however, we must also assume that Arnaud knew *irno kwekac* was the correct form, and we need to explain why he cited only part of it. I can only guess that, if our assumption is true, he did it in order not to weaken his explanation in the mind of his lay readers.[5]

Our construct has an incongruity which at first repels, then attracts. The incongruity is this: *kwedac* is already a complete form meaning 'an Iroquois.' *irno* means 'man' in the sense of 'human being, *homo*.' *irno kwedac* does not mean an Iroquois male. We have met the explicit form for this in Faber's *kwedaciwin*. Rather, *irno* and *kwedac* are independent names and must stand in apposition to each other, as though one were to say 'a man, an Iroquois.' [6] Champlain's interpreter may have said this once under certain conceivable circumstances, but it is not an expression one would expect to find in frequent usage. It could not have been the ordinary Montagnais nomenclature for the Iroquois, but this apparent disadvantage turns out to be an argument in its favor when the history of the name is reviewed.

The first appearance of the name in history is in Samuel de Champlain's account of his first visit to Tadoussac in 1603 (Biggar 1922 Vol. 1:96ff). Here he found about 1000 Indians—"Estechemins, Algoumequins, & Montagnes"—gathered to celebrate a victory over "les Irocois." It is noteworthy that, although the Hurons became Champlain's allies some years later, there was no mention of them at the 1603 gathering at Tadoussac, nor was there mention of any Iroquois prisoners who might have spoken their own name in Champlain's hearing, but only of Iroquois scalps. Champlain's contacts were a continuation of those made by French traders at Tadoussac. His companion was François Gravé, Sieur du Pont, who had voyaged to Canada before 1600 and had, in 1600, established a trading post at Tadoussac. These contacts were presumably with the Montagnais, who were the native people of the Tadoussac region. Champlain's communication was probably carried on through Indians who had been taken to France and returned with the voyage of 1603 as interpreters and who were also presumably Montagnais because of their origin. Conversation seems to have been chiefly with the Chief Anadabijou. He was probably a Montagnais, firstly, because he was host to the Tadoussac gathering; secondly, because the Algonkin chief was named as Besouat; and thirdly, because there is some indication that Anadabijou was not an Etchemin. Champlain did not name the Etchemin chief, but the Etchemins whom George Waymouth encountered 2 years later on the coast of Maine knew an "Anadabis or Anadbijon" who lived far to the north of their own country, and was therefore presumably not an Etchemin (Purchas 1625 Vol. 4:1874). Therefore, if "Iroquois" came into French through Champlain, it does appear most likely that it came from Montagnais speakers.

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[3] Bloomfield 1925: 146. Yet *irro* from PA *ileniwa would not be more aberrant than Moose Cree *ililiw* (Ellis 1962: 1.3-21,24).

[4] Pacifique 1939: 36. Analagous to *oénetj* 'français,' plural *oénetjg*.

[5] He would have known that his French-speaking readers would pronounce it *irnokwedaç*, and may have left out the last syllable to avoid this. He was not, after all, writing for a scholarly journal.

[6] There is some doubt whether *irno* would be applied to an Iroquois. Indians generally were not very ready to grant full human status to unfamiliar or unfriendly tribes. Words like *irno*, *homo*, 'human being,' 'man' were usually reserved by Algonkians for speakers of their particular language with other epithets being used for foreigners.

It is a curious fact, however, that, from the date of Champlain's record, "Iroquois" was common usage only in the French language. Hewitt pointed out that the Iroquois tribes never adopted it (Hewitt 1888:188), and we must differ here with Beauchamp who thought that Champlain found the name in constant use among the tribes of the Lower St. Lawrence River (Beauchamp 1905:165). Other contemporary names for the Iroquois were used by the Montagnais and Micmacs, as we have seen. It is particularly significant that LeJeune used "Hiroquois" as the French translation of the Montagnais name "*kouetakiou*" (JR. 8:23). Perhaps five possibilities remain: (1) When Champlain wrote "les Irocois," he was not hearing the name for the first time. This suggests that several languages might be scrutinized for a reasonable etymology. At least Portuguese, Breton, French, Basque, Beothuk, and Laurentian Iroquois are eligible by virtue of availability and phonetic inventories.[7] (2) If "Iroquois" came from contacts made before Champlain's time between traders and Montagnais speaking some unrecorded dialect, we can only contrive reasonable explanations from other dialects, but the real solution may be permanently lost. (3) If the name originated with Champlain, we have an argument for our incongruous construct *irno kwedac*, the sort of thing which might be uttered once by a struggling interpreter, and once recorded never heard again by the French. (4) Arnaud's *irnokué* may have been an aberrant but genuine form in an undocumented Montagnais or Naskapi dialect.

(5) There is one more possibility which is at least equally probable. During the long years of contact between the Algonquian and Iroquoian speakers on the St. Lawrence before 1570, it would have been easy for some Montagnais group to have adopted, with appropriate phonetic changes, a name heard from Iroquoian speakers. Such a name need not have replaced any native Montagnais name, but could have remained in circulation along with it. It would resist our attempts to analyse it with Montagnais morphemes—as "Iroquois" does—but it might acquire a folk etymology among the Montagnais. For example, Brant-Sero's Mohawk *I-ih rongwe*, passed through Montagnais would probably come out [iːrohkwe]. To Montagnais folk-etymologizers, this would suggest their words *irno* and *kwedac*, the latter their own name for the people in question, and Arnaud's Naskapis may have fed him this very solution. This would eliminate the need to explain Arnaud's abbreviating *irno kwedac* to *irnokué*. It is a bit awkward, as folk etymologies often are.

There seems to be no reason why it could not have happened in just this way and no evidence at all that it did. But it is perhaps the best accounting for all the evidence that we have at present.

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[7] And contrary to our assumption, Champlain might have heard it from "Estechemin" or "Algoumequin."

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Cartier's Hochelaga and the Dawson Site

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In 1535, Jacques Cartier (Biggar 1924) became the first European explorer to sail up the St. Lawrence River. In the vicinity of what is now Quebec City he came across a number of apparently undistinguished Indian villages whose inhabitants spoke an Iroquoian language. On October 2, Cartier reached the Island of Montreal and close to the mountain there, in what is now the central part of the city of Montreal, he discovered a large Iroquoian village. This village was surrounded by a triple palisade that had only one gate and was provided with galleries for defense. Outside the town were extensive cornfields; inside were an estimated 50 longhouses. Cartier was made welcome in the village, but he stayed there for only a few hours before climbing Mount Royal and then making his way back to the river for his return trip to Quebec.

In 1541, Cartier came back to Montreal Island to explore the Lachine Rapids. Several Indian encampments are described near the river and mention is made of the village of Tutonaguy, which apparently was close to Hochelaga and may have been merely another name for that village. Only a portion of the narrative of this voyage is preserved, however, and Hochelaga is nowhere mentioned by name. Cartier's nephew, Jaques Noël, visited Montreal Island in the 1580's, but the two brief letters that describe his travels discuss only geographical problems. The island remained shrouded in complete silence until the first visit of Samuel de Champlain in 1603. By that time, Hochelaga had vanished and the Iroquoian-speaking peoples had abandoned the St. Lawrence Valley. Throughout the 17th century, various stories were recorded which purport to tell of events which happened along the St. Lawrence between 1535 and 1603. According to Marc Lescarbot (1914, pp. 114, 117, 267-8), who may have received his information from Champlain, the Hochelagans and other tribes who had lived along the river were driven out by the Iroquois around 1600. In 1664, Du Creux (1951:370) repeated a similar account in his *Historia Canadensis*. No other French writers recorded anything specific about Hochelaga, but the Jesuit Relations record that in 1642 several members of a small Algonkin tribe living in the lower part of the Ottawa Valley claimed that their ancestors had formerly inhabited Montreal Island. Their name for the island meant "the island on which stood a village," and according to their story they had been driven out by the Huron (JR 22:215-17). Nicholas Perrot (1911:42-47) and later Bacqueville de la Potherie (1722, Vol. I) and Pierre Charlevoix (1774) recorded a story that the Iroquois formerly had lived in the vicinity of Montreal and had been driven south by the Algonkians. In 1697 Charles Aubert de La Chesnaye recorded another tradition that the Algonkians had chased the Iroquois from the vicinity of Quebec City. Despite the fact that the Jesuit story refers to an Algonkin tribe that wanted to settle on Montreal Island at the very time the story was collected and the possibility that the Perrot story may reflect the Algonkian offensive that Champlain observed early in the 17th century, both of these accounts have been considered by various authors to have a bearing on the story of Hochelaga.

In 1860, the removal of earth near the campus of McGill University in Montreal revealed the remains of an Indian encampment and burial ground. Sir John William Dawson, the principal of the university, and some of his associates from the Natural History Society of Montreal became interested in the site and made collections of artifacts. Dawson (1888) alone provided a detailed description of what he observed while he made his surface collections and casual excavations on the site. Although the finds were made over an area of less than 2 imperial acres, this was the only Indian encampment found within the city limits and Dawson suggested that it might be the site of Hochelaga. Within a short time Dawson's caution was forgotten and his site became firmly identified in people's minds with Cartier's Hochelaga, especially when it became clear that the material from the site resembled that from Iroquoian sites elsewhere. While certain scholars, particularly French Canadian ones, objected to this (Beaugrand-Champagne 1923), their objections were ignored and in almost all English language publications the site was referred to simply as Hochelaga.

Recently Lieutenant-Colonel James F. Pendergast, myself, and several others undertook to publish and reappraise all of the material concerning Hochelaga and the Iroquoian occupation of the Montreal area. My own part in this project was to survey the historical and ethnohistorical literature dealing with Hochelaga and with what Pendergast and I have agreed to call the "Dawson site." The four main problems I have examined are Cartier's

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description of Hochelaga, the location of this village, the ethnic identity of its inhabitants, and the reasons for its disappearance. Careful attention has been given to the French Canadian literature on each of these topics since much of it is unfamiliar to scholars in the United States.

Some of the major conclusions that I reached in this report are as follows:

The description of Hochelaga is clearly that of a typical large Iroquoian town. It is a brief description, however, and it is not entirely clear that the version that has survived was written by Cartier himself. Furthermore, the description is based on a visit to the village which lasted only a few hours, during which much of the time was taken up with the public celebration that greeted the arrival of the French. As a result, little detailed information is provided. The descriptions of the walls of the village and of its houses are in fact rather garbled—the latter so badly that even the artist who prepared the plan of Hochelaga for Ramusio's edition of Cartier's relation was led to believe that there was only one hearth per house. The description of the village is too vague, and our knowledge of prehistoric variation in Iroquoian material culture still too limited, to permit pronouncements as to whether Hochelaga resembles the villages of certain historic Iroquoian tribes more than it does those of others. The economy of the village clearly resembles later Iroquoian ones and corn fields surrounded it on every side, some extending up the slopes of Mount Royal. One difference may be noted in the large number of eels that were seen stored away for the winter. These were common in the St. Lawrence and were apparently used in the diet of the peoples who lived along its banks much as fish were among other Iroquoian groups. Population estimates for Hochelaga have run as high as 3500, but 1500 to 2000 seems a more reasonable estimate. The two encampments that Cartier visited close to the St. Lawrence may have been temporary fishing sites, but it is not unlikely that there were a number of small permanent "satellite communities" on the island.

Although the Dawson site is the only Iroquoian village found to date within the city limits of Montreal, it seems not at all unlikely that other village sites have been destroyed without being noted. Four criteria must be satisfied in order to demonstrate that the Dawson site is, in fact, Hochelaga. It must be shown to be located in accordance with Cartier's description, to date from the early part of the 16th century, to contain trade goods, and to conform in size and shape to Cartier's village.

Cartier's relation says that Hochelaga was located near Mount Royal, in fact about ¼ league (¾ mile) away, and was approached from the river by a path 2 leagues long which ran through the forest and the cornfields of the village. Unfortunately, Cartier does not provide us with any further details; he does not even say, for example, on which side of the mountain the village was located. The Dawson site is close to Mount Royal but is less than 1 mile (let alone 2 leagues) from the St. Lawrence River at its nearest point. It has been argued, however, that Cartier landed farther upstream near the Lachine Rapids. The general uncertainty about the landing place and the position of the village relative to the mountain does not rule out the Dawson site as being Hochelaga, but it provides little support for an argument that it was.

Pendergast's pottery seriations indicate that the Dawson site is a very late one in the Upper St. Lawrence Valley sequence, and hence likely dates from the 16th century. The presence of small amounts of trade goods, some apparently of French origin (according to Kenneth Kidd), suggests further that it is a contact site, although the association between the trade goods and the native material is not entirely clear from Dawson's presentation. It is possible then that the Dawson site was inhabited at the time of Cartier's visit, but it is also possible that it existed slightly earlier or later. The small amount of trade goods could easily have reached the site from the Gulf of St. Lawrence, where the Indians traded with the Europeans throughout the 16th century.

The fruitfulness of any comparison of the size and shape of the Dawson site with those of Hochelaga is limited by lack of detailed information in Dawson's reports. If Dawson is correct, however, when he concludes that the site covered less than 2 imperial acres it seems highly unlikely that the site is Hochelaga, which must have covered at least 7 acres. No evidence has ever been found to suggest that the site was larger than Dawson claimed and, therefore, unless most of it had been removed prior to Dawson's examination, it is likely that it is not Hochelaga but some smaller satellite village that existed at or about the same time as the main village. The fact that hearths appear to have extended right to the edge of the brook that ran along the west side of the site also suggests that it may not have been palisaded. Even if the Dawson site is unlikely to have been Hochelaga, the culture found there is probably close to, if not identical with, that of the main village.

Various theories have been proposed concerning the ethnic identity of the Hochelagans, and they have been variously described as Huron, Mohawk, Onondaga, Oneida, Seneca, Petun and Tuscarora. Prior to Father Jean-Andre Cuoq's (1869) study of the Cartier vocabularies, Dawson had even suggested they were Algonkian. Most of these suggestions were based on various interpretations of the 17th century accounts cited above, eked out with Indian legends and imperfect and often mis-used archaeological and linguistic evidence.

In the middle of the last century, Perrot's story became the basis for a theory which postulated that all of the Iroquoian peoples had originated along the St. Lawrence. The Hochelagans and the Stadaconans (the Iroquoians in the vicinity of Quebec City) were merely the two groups that had stayed behind the longest and they were variously identified as the ancestors of one or more of the Huron or Five Nations tribes. It is interesting that even when this theory of northern origins gave way to various other theories (particularly the Lloyd-Parker theory of southern origin) these ideas concerning the ethnic identity of the Hochelagans were retained and reworked to fit the new general framework. Most of the theorizing of this period was marked by little regard for the origin and validity of the data that were used. More often than not, authors collected all the material they could to support their particular theory, used it indiscriminately and ignored all contrary evidence. It is little wonder that the same data were often used to support totally different conclusions. In my opinion, 17th century historical accounts and legends collected among various Indians tribes during the last two centuries can tell us nothing about the ethnic identity of the Hochelagans. Instead we must rely upon archaeological and linguistic data. Today it is generally recognized that, if the Dawson site is representative of Hochelagan culture, these people had a material culture similar to that of the protohistoric Onondaga and Oneida. This, however, does not solve the problem of the ethnic identity of the Hochelagans and it does not prove that the Hochelagans were specifically Onondaga or Oneida. The linguistic evidence, which was collected among the Stadaconans, but which Cartier says also applied to the Hochelagans, is very limited and not of the best quality but according to Floyd G. Lounsbury (1961) and others it suggests that the St. Lawrence Iroquoians spoke a dialect that is distinct from any Iroquoian language recorded at a later date and probably one that was extinct by the 17th century. If this is so, the Hochelagans are unlikely to have been ethnically Onondaga or Oneida, but probably were a separate tribe that was in close contact with them. Despite the fact that the Hochelagans and Stadaconans appear to have spoken the same language, they were culturally different and politically rivalrous. Hence, it is probably best to distinguish them as two separate groups and abandon the term Laurentian Iroquois.

Various explanations have been offered concerning the disappearance of the Hochelagans. The accounts recorded by Lescarbot, the Jesuits, Perrot and others are ambiguous and appear to be unrelated and mutually contradictory. Most of the 19th century discussions of the disappearance of Hochelaga consist either of the recital and defense of one of these stories or else of elaborate attempts to reconcile them with intricate and highly divergent pseudohistorical reconstructions. Most of these accounts fail to provide any reasonable explanation for the events which they proposed happened. Unfortunately, when one is uncertain what did happen, this sort of explanation is exactly the sort which becomes especially important.

In 1930, Harold Innis introduced a new trend into the studies of ethnic changes along the St. Lawrence when he proposed that the disappearance of the Iroquoians was related to the fur trade with the Europeans. He suggested that the Algonkians of the Saquenay region were the first Indians in the St. Lawrence Valley to acquire metal axes and that this allowed them to wage war on the agricultural tribes upriver. They did this in order to open the St. Lawrence as a trade route to the interior. Since that time, Alfred Bailey (1933) and Bernard Hoffman (1961) have offered explanations that differ from that of Innis but continue to relate events in the St. Lawrence to the fur trade. Hoffman (1961), for example, has suggested that as the fur trade spread up the river the Indians moved inland in search of furs and gradually became hunters. The resulting "social disorganization" allowed them to fall easy prey to the Iroquois when they were attacked early in the 17th century.

It seems quite clear from Champlain's accounts that the St. Lawrence Valley was deserted in 1603 not because the Indians who lived in this area had moved inland in search of furs but through fear of the Iroquois. The most likely reason for the Iroquois to have attacked this region was a desire to eliminate tribes that were collecting tolls or acting as middlemen in the fur trade and thus to gain direct access to the European ships that came to Tadoussac. This line of reasoning would extend George T. Hunt's (1940) explanation of the Wars of the Iroquois well back into the 16th century. In the final report a number of possible sequences of events will be examined. It does not appear that any single group in the 17th century can claim descent from the Hochelagans. Archaeological evidence indicates quite clearly that they did not flee south to become the Mohawk, nor is there any reason to believe that they migrated westward to become the last tribes to join the Huron confederacy. It is possible, however, that small groups of refugees (or prisoners) were incorporated into the Huron and Five Nations and perhaps also into certain Algonkian tribes such as the Petite Nation.

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Iroquois Archaeology in Eastern Ontario and Southern Quebec

James F. Pendergast, Ottawa, Ontario

The purpose of this paper is to discuss recent archaeological work I have conducted on Iroquois sites in Eastern Ontario and Southern Quebec on behalf of the National Museum of Canada. In particular, it is to draw attention to the significance which has been attached to certain heretofore unreported pottery types which are found on Iroquois sites in that general area.

For the purposes of this discussion, Eastern Ontario will be considered to be that portion of the Province of Ontario between the St. Lawrence and Ottawa Rivers east of the Pre-Cambrian Frontenac Axis; i.e., east of the Rideau Canal. Southern Quebec refers to the adjacent areas to the east and northeast in the Province of Quebec.

During 1961 and 1962 a detailed study of the Salem, Grays Creek, and Beckstead sites in Eastern Ontario (Pendergast n.d.1) disclosed that there existed on those sites a significant quantity of pottery which had not been noted by MacNeish in his monograph "Iroquois Pottery Types" (MacNeish 1952). Unlike the medium- and high-collared Iroquoian pottery usually found in the area, which is decorated with incising ordenate stamping, this pottery is characterized by the great variety of collarless and low-collared rim shapes involved, together with the number of motifs executed in a linear stamping technique. Lip decoration on this ware is common and sometimes complex, whereas lip decoration is found infrequently on the more common Iroquoian pottery types native to the area. It should be clear that "linear stamping" is a term used here to describe a technique involving the impression of the wet clay with the end or side of an object, probably a potter's paddle. The resulting impressions may be ovoid or rectangular in shape and may vary from nearly round or square to elongated to the extent that only close scrutiny can differentiate them from broad incised lines. Short stamps may be laid end-to-end to create a linear effect, or a single long narrow stamp may be used to create an extended linear effect. The latter technique is more common than the former. Because the stamp is not dragged from one impression to the next, the effect is not the same as the so-called "push-pull" technique.

Recognition of the stamped low-collared and collarless pottery led to lengthy and voluminous correspondence on the subject with Mr. P. Schuyler Miller, which further revealed that he had noted a considerable quantity of similar pottery in collections of Iroquoian pottery in Vermont. Subsequently, a re-study of the collection from the Roebuck site in Eastern Ontario in the National Museum of Canada and of Wintemberg's (1936) report on that site disclosed that the stamped, low-collared and collarless varieties also existed in that sample, but apparently to a lesser degree than at the Salem, Grays Creek, or Beckstead sites. It also revealed that Wintemberg (1936: 36, 123) had suggested the possibility of the collarless variety being the survival of an earlier Iroquoian pot form.

Wintemberg's hypothesis confirmed an opinion I had formed independently regarding the possibility that the incidence of both the stamped, low-collared and the collarless forms on Iroquois sites in the general area might provide a basis for arriving at a local site seriation. This would have been particularly advantageous because at that time insufficient information was available on Iroquoian sites in the area to permit any site characteristic, or combination of characteristics, to be used as a time marker to arrive at a site seriation. The possible exception might have been that dentate-stamp decorated sherds appeared to be early. There also arose the possibility of there being a link between Iroquois sites in the Lake Champlain area of Vermont and those in Eastern Ontario. Should this be the case, the trait would take on added significance in that it would suggest a closer relationship between the Iroquoian sites in the Lake Champlain area and those in the St. Lawrence River Valley than had been previously recognized. Further, this trait would delienate a considerable area of Iroquoia giving rise to the possibility that its inhabitants may have been a group distinctly different from other Iroquoians in some yet unknown characteristics.

In 1963, with these possibilities in mind, the National Museum of Canada provided me with the financial assistance necessary to conduct an archaeological survey in Quebec between the Richelieu and St. Lawrence Rivers north of the Adirondack Mountains. Unfortunately, no major Iroquois sites were located in the area to link Vermont and Eastern Ontario on the same time level. However, a number of small sites were located which produce a preponderance of the stamp-decorated pottery that appears to represent an even earlier stage in the local Iroquoian sequence than the earliest known sites in

Eastern Ontario (Pendergast n.d.2). This discovery further supported the opinion that stamp-decorated rim sherds are indicative of early local Iroquois sites and suggested a time level in local Iroquoian development when stamping preceded incising as the dominant technique. It also suggested an ancestor for the minority group of stamp-decorated rim sherds found in collections from the sites in the Lake Champlain and Eastern Ontario sites.

In 1964, having some knowledge of what the earliest Iroquoian sites in the area looked like, I launched a definitive study of the material from what is the latest known local Iroquoian site, Sir James W. Dawson's site in Montreal which he called "Hochelaga" (Dawson 1860, 1861). The decision to undertake this project stemmed also from an opinion that if greater value was to be obtained from the archaeological investigation of Iroquois sites in the St. Lawrence River Valley, it would be necessary to correlate archaeological and historic data. Hochelaga, having been visited by Jacques Cartier in 1535, was by far the earliest Iroquois site visited by Europeans and historic data was available. Accordingly, attention was focused on that site as the best suited to correlate archaeology and history.

Although the analysis of the material from Dawson's site is not yet complete, a preliminary study of the pottery from the site indicates that stamped, low-collared and collarless types are included in the sample to a somewhat lesser degree than some other Iroquoian sites in the area, and certainly there are significantly less than on the earliest Iroquoian sites. Should this relationship be borne out in the final analysis, a definite pattern of incidence on an early to late sequence will have been established and the trait will, in fact, become a valuable time marker. It may also set the inhabitants of this area apart from other Iroquoians in a manner not yet clear.

To present a more complete background as regards my views on stamped, collarless, and low-collared ware, I would also like to explain that I had entertained other speculative opinions on the origin of this pottery group to the extent that two interesting possibilities had presented themselves. Basically they were that the pottery could be either:

a. Attributable to the survival of an early Iroquoian pottery form; hence its relative incidence would be indicative of site seriation, or
b. Attributable to a non-Iroquois group cohabiting the site with the Iroquois in some unexplained capacity; e.g., allies, traders, captives.

In the light of present knowledge it is likely that the first option is more correct than the second.

Nevertheless, during the summer of 1965 I made an archaeological survey under the sponsorship of the National Museum of Canada, of the apex of the triangle of land between the junction of the St. Lawrence and Ottawa Rivers to test these opinions. The idea behind the survey was that if a site mentioned by Champlain as belonging to the Algonkians in that area could be found, pottery from it could be compared with local Iroquoian pottery and, in particular, with the stamped low-collared and collarless ware. It was hoped that pottery differences would confirm or deny one or the other of the two possibilities mentioned and lead to a greater understanding of the significance of the new pottery group. Unfortunately, no sites were located which could be attributed to the Algonkian.

In a more positive vein, work in Eastern Ontario to date has made it possible to draw a number of more general conclusions regarding the Iroquoian inhabitants of the St. Lawrence River Valley. In decreasing order of certainty these are:

1. Carinated shoulders and castellations occur on pottery from later sites more frequently than they do on pottery from the earlier sites.
2. Stamp-decorated, low collared, and collarless pottery, pottery with lip decorations, and check-stamp body sherds occur more frequently on earlier sites than they do on later sites.
3. Cord-roughened neck and body sherds occur in the pottery samples from most sites in variable amounts which do not yet seem to bear any particular relationship to the other pottery traits mentioned.
4. Bird bone beads, stone and pottery discs, and worked phalanges do not occur on the earliest sites but, with the exception of worked phalanges, their popularity increases from early to late when they are introduced. Once worked deer phalanges are introduced, hollowed specimens, called the "cup-and-pin" variety, initially enjoy a greater popularity than the ground, or "toggle," variety but this popularity gives way in favour of the "toggle" form on the later sites.

Considerable work remains to be done before a reconstruction of the Iroquoian culture of the St. Lawrence River Valley can be proposed with any certainty. However, several large sites significant in the development of a reconstruction are known and plans for their investigation are in hand. It is hoped that when the results of these investigations are made known we will have a greater insight into the prehistory of the area and its bearing on Iroquoian development as a whole.

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The Kelso Site:

ITS SIGNIFICANCE FOR THE PROBLEM OF IROQUOIS ORIGIN

William A. Ritchie, New York State Museum and Science Service

The Kelso site, the first known and earliest excavated large component of inchoate Iroquois provenience in New York State, represents in most of its features and traits an almost perfect transitional stage linking late Owasco to nascent Iroquois cultural development. As such, it provides a large part of the concrete archaeological evidence required to support the *in situ* theory of Iroquois origins (MacNeish 1952; Ritchie 1961).

Since the excavation of the Kelso site in 1963, several other large Iroquois village sites of the early horizon have been discovered and two of them have been explored. One is the Howlett Hill site, excavated by James A. Tuck, and described in this volume; the other is the Nahrwold No. 1 site at Middleburg, New York, excavated in 1965 by the writer for the New York State Museum and Science Service.

Since the Kelso site has already been described in print (Ritchie 1965: 303-311) and a more detailed account exists in manuscript for inclusion in a major settlement pattern report by the writer and Robert E. Funk, only a summary statement of its principal characteristics need be given here.

Preliminary investigations were conducted at the site by the writer in 1952 and 1960, and by a student party from Syracuse University, led by James B. Richardson, in 1962. The writer's analysis of the total material led him to believe that the Kelso site would provide prime data bearing on the problem of Iroquois origins and the definition of a formative developmental stage which has since become known as the Oak Hill phase (Ritchie 1965: 271, 272, 300, 302-303; Lenig 1965). Large-scale excavations were therefore undertaken during the following year, through the courtesy of the present owner, Joseph Szablock, and with the assistance of National Science Foundation Grant 22101 in support of the writer's long-term investigation of the development of aboriginal settlement patterns in the Northeast. The work was conducted over a period of 8 weeks by Robert E. Funk and the writer, assisted by a field crew of three student helpers and, for a 6-week period, by three additional Syracuse University students enrolled in a field methodology course under our direction.

The Szablock farm is 1 mile south of the village of Elbridge, Onondaga County, and the site lies on a low ridge of Palmyra gravelly-silt loam, about 500 feet east of Skaneateles Creek. About half of it is in old pasture, the rest in a stony brush-covered field that has apparently never been plowed, but has suffered extensive damage from bulldozing which, combined with lack of time, permitted only a partial exploration. Approximately 10,000 square feet of the site was gridded in 10-foot sections, completely excavated and mapped (see small scale map in Ritchie 1965: Figure 12).

The site proved to be much larger than anticipated, consisting of two slightly overlapping villages of 2 acres each, bounded on their peripheries by multiple stockade lines. While the relative age of the two settlements was not definitely established, some data suggest the priority of the western component. That both settlements were produced by people of a single culture is unequivocal. Residence was probably by a single group who used the same longhouse and pottery styles and other artifact types and who returned to a favored site after an absence of perhaps a decade or so to allow for the natural restitution of the game supply, firewood, and (possibly) soil fertility.

The fortification features, the earliest known for the New York Iroquois, are of considerable interest as they are radically different from later Iroquois palisades made after the introduction of the steel trade ax. Each of the two partly-overlapping enclosures, roughly ovate in outline, had been constructed of sapling poles 3 to 4 inches in diameter, set, apparently by a twisting motion, some 8 to 17 inches in the subsoil and spaced 6 to 8 inches apart. Such a palisade line would become effective only by interlacing the upright elements with withes or branches to form a fence-like wall. The double, and in places, treble stockade lines, were separated by corridors about 4 to 6 feet wide. Based on an estimate from the angle of a line of buttress molds, the walls were at least 15 feet in height.

The village had consisted of house structures of two kinds, differing chiefly in size. One was a smaller oval to oblong form, measuring between 16 by 19 feet and 26 by 32 feet, and the other was a true longhouse type, rectanguloid with rounded ends, ranging from 112 to 128 feet in length, with a uniform width of 22 feet All had been constructed of small poles, around 3 inches in diameter, were probably bark-covered, and had

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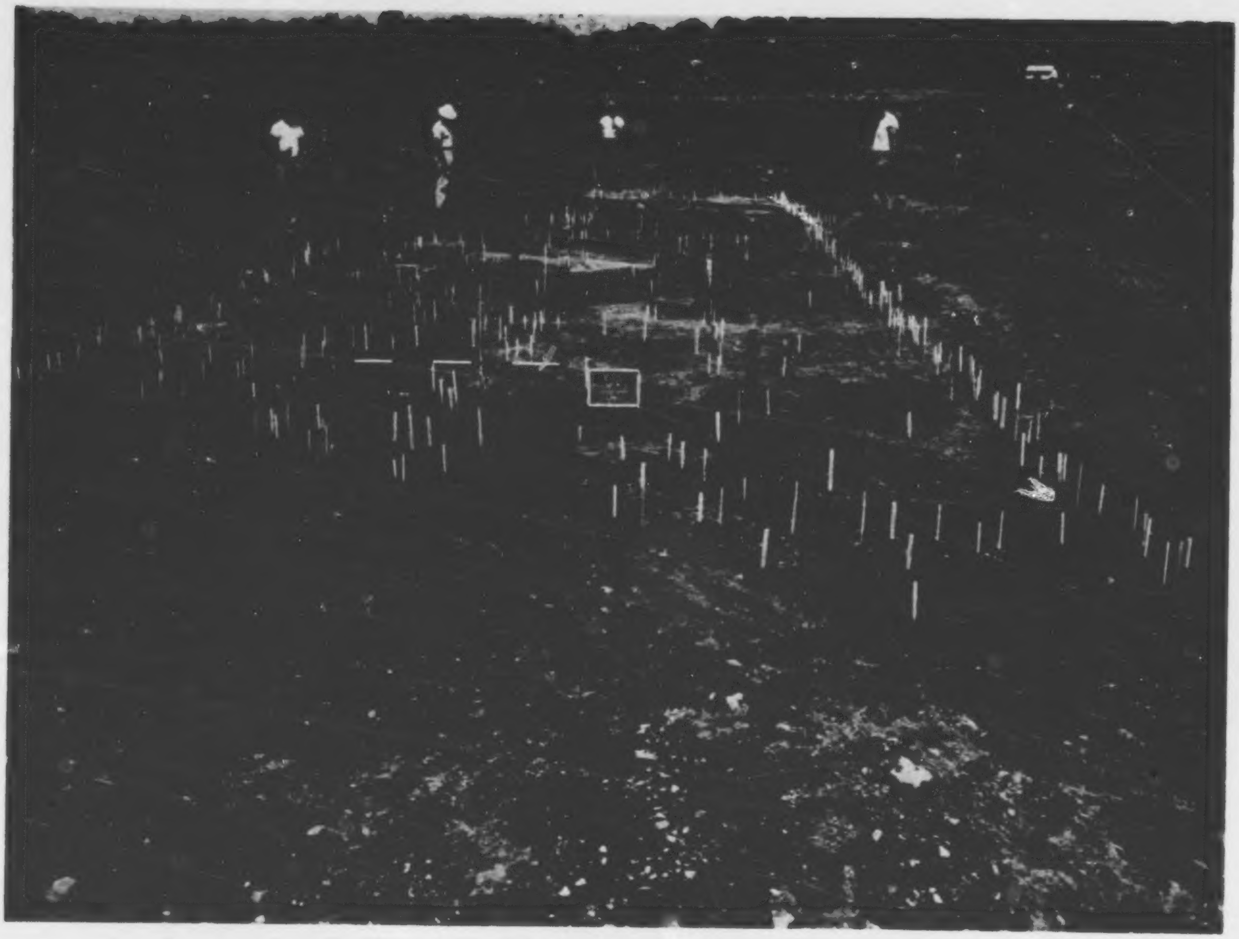

Floor pattern of longhouse (Number 3) partially uncovered.

centrally-located fireplaces. Both forms had previously been found and described by the writer on pre-Iroquoian sites of early Owasco age in New York, radiocarbon dated between A.D. 1070 and 1100 (Ritchie 1965: 281-285). A population estimate for the village, discussed elsewhere, is approximately 225 persons (Ritchie 1965: 309).

One of the hearths with associated pottery yielded charcoal which was radiocarbon dated by the Yale Radiocarbon Laboratory at A.D. 1390 ± 100 years (Y-1380). This somewhat later than expected age is, however, supported by a similar C-14 date of A.D. 1380 ± 60 (Y-1689) for the Howlett Hill site of about the same stage of cultural development.

The subsistence of the Kelso site people was based upon a mixed economy which included maize and probably other cultivars which were not found, wild plants, large and small mammals, birds, and fish. This type of economy, like the settlement pattern including house types and fortifications, and other aspects of the culture long preceded the appearance of recognizable Iroquois cultures, having been found by the writer on Owasco sites in New York and by others on sites of the Pickering culture in Ontario (Ritchie 1961: 31; 1965: 275, 281-284, 296, 300-301).

The inventory of hunting and fishing equipment, of tools, ornaments, and ceramic traits of the Kelso site is discussed in the references already mentioned and need not be repeated except to state that the dominant and diagnostic pottery type conforms to the late Owasco Corded-Collar type which grades into the Oak Hill Corded type. Associated pottery types and frequency percentages further serve to place the Kelso site typologically in the very early stage of emergence of the Oak Hill phase from the late Castle Creek phase of the Owasco culture. It was the first found and described and is one of the most important of the village sites of the formative stage of eastern Iroquois culture.

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The Howlett Hill Site:

AN EARLY IROQUOIS VILLAGE IN CENTRAL NEW YORK[1]

James A. Tuck, Syracuse University

The Howlett Hill site (Syr 10-3) is located in the town of Onondaga, Onondaga County, New York, some 2 miles southwest of the city of Syracuse. The site is one of several discovered by Robert Ricklis, a student at the University of Wisconsin, who subsequently donated his collections from these sites to Syracuse University. It is on a gentle, north-facing slope which overlooks Onondaga Lake, the historic seat of the Iroquois Confederacy, at a distance of about 4 miles. About 500 yards west of the site is a steep ravine, eroded into the underlying shale by a small stream. This may have served as a water source in aboriginal times, when it was doubtless much larger. To the east is another smaller, intermittant stream which has been somewhat diverted from its original course by recent construction. From March to June several small springs are present near the village area, but probably never produced enough water to have served as a water source.

The soil overlying the shale subsoil is predominantly a palatine silt-loam, a newly-formed soil said to be fertile for general farming (Anonymous n.d.). Pockets of sandy clay are present between the topsoil and underlying shale. Throughout the area shale outcrops and bits of shale torn up by the plow are intermixed with the top- and subsoil.

Because of the much-plowed nature of the 8-to 10-inch tilth zone, a major portion of the site was stripped of this overburden with power machinery donated by several local contractors. The remaining few inches were removed with shovels and hoes and each section was carefully scraped with trowels in a search for post molds and other features. More than 13,000 square feet of the village were exposed in this manner.

A village of limited size, similar to those of this phase supposed to exist in the Mohawk Valley, originally seemed to be indicated by the paucity of artifacts in all but a small portion of the site. Subsequent excavation, however, revealed a good-sized town. This finding brings into question the validity of inferring village size from the number of artifacts found. It may be that the breakup of villages between Owasco and Iroquois times, which has been proposed by Witthoft (1959:37) and accepted by Lenig (1965:40) on the basis of scanty cultural remains at a number of sites, does not represent the true picture at all. If resources had permitted more thorough studies of settlement patterns of transitional sites in the Mohawk area we may have discovered, as we have in central New York, that there was a progressive increase in village size from Owasco to Iroquois times.

This scarcity of artifacts seems more likely attributable to a short occupation, perhaps due to exhaustion of game, firewood, or the soil, rather than to small population size. It may be, too, that the occupants of the Howlett Hill site lived in a village only ¾ of a mile to the northeast immediately prior to that at Howlett Hill, and that consequently many of the supplies near the Howlett Hill site had been exhausted when it was built. Investigations planned for 1966 at this and other related sites may provide some further data on this subject.

During the course of the investigations at Howlett Hill, four definite structures were encountered. Three of these were typical Iroquois longhouses, although of greatly varying dimensions, while the fourth seems to represent an above-ground granary. All four structures were constructed in essentially the same manner. Sharpened poles 2 to 3 inches in diameter were forced into the ground to a depth of 8 to 12 inches below what is now the base of the plow zone. In many cases, the depths to which the posts were driven, and even the outlines of the structures themselves, were modified by such naturally occurring obstacles as boulders or shale outcrops in the soil. The houses were probably constructed either by bending and tying these poles at the top or, as later ethnographic data suggests, by tying additional poles onto the upright frame to form a domed roof. The entire structure was then covered with a layer of bark. As supports for the roof, and probably also for bench-beds, larger posts, 8 to 10 inches in diameter were placed in holes dug in the floor for that purpose. The flat bottoms and relatively great depth of these post molds would indicate that they were dug and not driven into the ground as were the wall posts. These can be clearly seen as rows of post molds 5 to 7 feet inside the walls of the houses shown in Figure 1. In typical Iroquois fashion, the doors were located at both ends of all three houses. They were probably covered with a skin or vegetable mat, although peculiar post mold patterns at

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[1] This is one of a series of early Iroquois sites being investigated by the writer under a grant from the Wenner-Gren Foundation for Anthropological Research.

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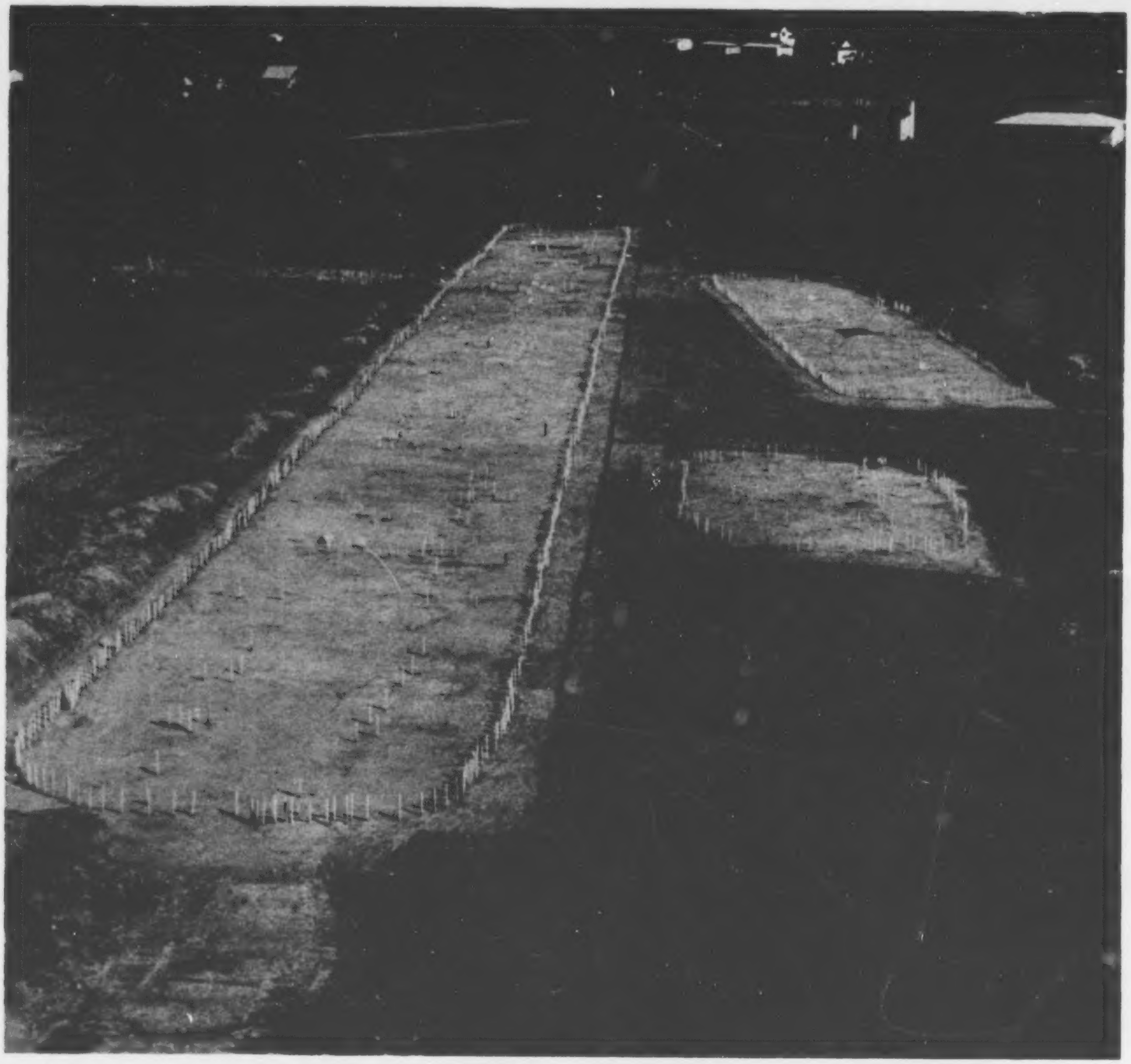
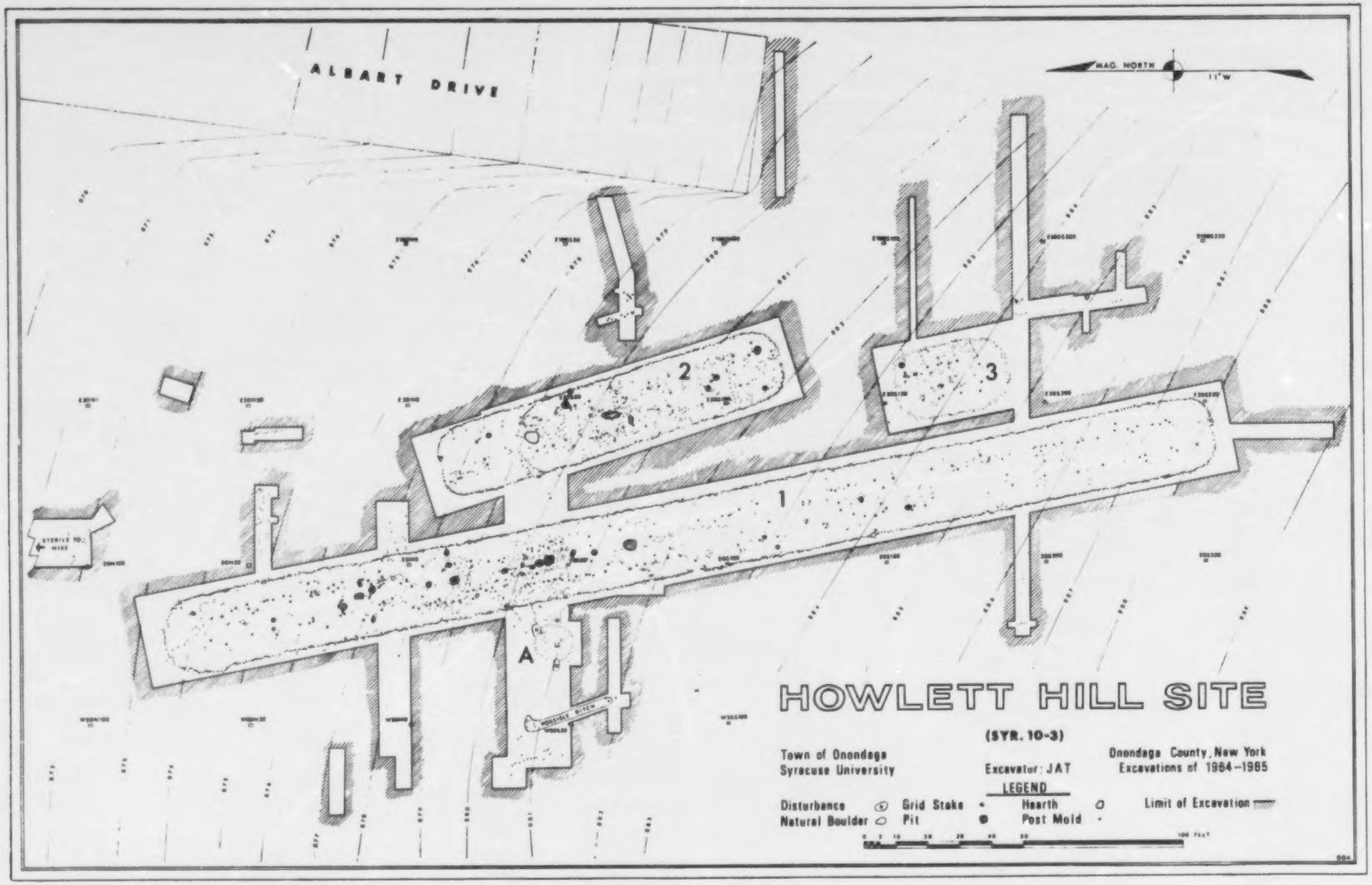


The Howlett Hill Site: Looking North


ALBART DRIVE
MAG. NORTH
11°W
1
2
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A
POSSIBLE DITCH
HOWLETT HILL SITE
(SYR. 10-3)
Town of Onondaga
Syracuse University
Excavator: JAT
Onondaga County, New York
Excavations of 1984–1985
LEGEND
Disturbance
Grid Stake
Hearth
Limit of Excavation
Natural Boulder
Pit
Post Mold
0
5
10
20
30
40
50
100 FEET

the doors to House 2 hint at some more permanent structure.

Structure A (see figure 1) was a small, round building measuring about 12 feet in diameter and constructed of poles 1½ to 2½ inches in diameter, somewhat smaller poles than those used in the other structures. The absence of a hearth or other evidence of fire seems to eliminate the possibility that this structure was a house. Similarly, the absence of any traces of fire-broken stone indicates that this was probably not used as a sweat lodge. A more likely explanation for the function of this structure is that it was an above-ground granary. As deep storage pits so common on other Iroquois sites were not found at Howlett Hill, we must assume that some other means of storing grain was employed. A granary or storehouse similar to this structure would have served this purpose nicely. A rather indefinite pattern of post molds seems to connect this structure to House 1.

House 1, constructed essentially as described above, measured 334 feet in length by approximately 23 feet in width. This extreme length represents, to my knowledge, the largest house yet discovered in the Northeastern Woodlands. The possible reasons for the construction of this unusual structure are unclear, but further investigation at the previously-mentioned sites may shed some light on this question. One other deviation from the normal construction pattern is also found in this house: a side door in the west wall exactly in the center of the house (167 feet from either end). This was probably made necessary by the extreme length of this structure and suggests that the house was built as a pre-planned construction, probably for a predetermined number of families.

House 2 measured 112 feet by 23 feet and was unusual in that it had originally been 86 feet long, but at some later time a 26 foot addition had been built on the north end. The rounded shape of the original wall makes it unlikely that this was a partition separating the main body of the house from a storage room. A straight wall perpendicular to the side walls would have served this purpose more economically. No such additions to House 1 were found, although they were carefully sought.

House 3, which was exactly parallel to House 1 and separated from it by only 10 feet, measured 35 by 22 feet. The construction of the exterior walls was extremely irregular, probably as a result of considerable repairs. In fact, the entire east wall seems to have been rebuilt at some time. The large interior support posts were spaced with unusual regularity, but the numerous, tightly-spaced clusters of smaller post molds are difficult to interpret.

Features within the houses include small pits and hearths. The former measure from 12 to 20 inches in diameter and extend up to 12 inches below the base of the plow zone. The fill in these pits was generally a rich, black humus in which occasional artifacts and bits of refuse bone were to be found. These may have been storage pits, perhaps for a single family, but their small size seems to make this unlikely. These may also have been hearths which became lined with ash and charcoal which prevented their walls from becoming fire-reddened. The amount of charcoal and ash remaining in these pits is so small, however, as to preclude this as a definite conclusion. The function of these pits will, therefore, have to remain in doubt, at least for the time being.

Most of the central hearths were irregular, fire-reddened patches of earth between 2 and 4 feet in diameter. In two cases they had been dug 1 to 2 inches into the subsoil. Probably they had originally been scooped out to a depth of 8 to 12 inches below the ground surface. Hearths were not found in the southern portion of House 1, but they probably had been entirely plowed away during cultivation as the topsoil was thinner here than in other parts of the site.

Test trenches were extended in all directions from these houses in an attempt to locate other dwellings or a defensive palisade. No structures that were unmistakably houses were encountered, although the area north of House 2 may have contained such a structure. All possible lines of post molds were followed in an effort to substantiate the existence of a palisade. In every case the lines disappeared after several to 10 or so molds had been uncovered. When plotted and viewed in their entirety, however, the groups of post molds suggest what may have been a single row of stockade posts. The nature of these post molds may indicate that they were set in a low earth ring which has since been plowed away, leaving only occasional traces of the stockade. On the western edge of the site was found what may have been a ditch 38 feet long, 2 feet wide, and extending some 10 to 12 inches below the base of the plow zone. This was filled with a dark humus interspersed with occasional artifacts and was obviously of Indian origin.

When viewed as a unit the village gives the appearance of having been constructed according to a definite plan, each house for a predetermined number of families. An approximation of the population can be reached by estimating the original number of hearths in each house, doubling this number (as two families used each hearth), and finally, multiplying this total by 4.5, the approximate number of people in each nuclear family. The result of this calculation must be very crude in the case of Howlett Hill, because a certain amount of reorganization is evident in House 1 and some of the hearths have been plowed away. A reasonable estimate would place the population of this site at something between 150 and 200 people.

All artifacts encountered had been badly broken, both by the occupants of the site and as the result of subsequent cultivation. Ceramic remains constitute the majority of artifacts and include both smoking pipes and cooking pots. The former are of a fine paste, tan to orange in color, and decorated with fine incised lines, small punctations, or by impressions of a small cord-wrapped object. The only fragment large enough to give some indication of form is probably of the "puff-sleeve" variety typical of late Owasco culture (Lenig 1965:15).

The final analysis of ceramics is to be based upon modes or attributes, and at this time only a preliminary analysis has been made. All ceramics represented are of the collared variety, with decoration primarily on the collar, although a high percentage of the vessels also have decorated necks. Two decorative motifs are present. The first is a series of horizontal lines on the collar with occasional short oblique lines above and/or below them. This motif is executed in two techniques: (1) with a cord-wrapped paddle, conforming to the Owasco Corded Collar type proposed by Ritchie and MacNeish (1949), and (2) interrupted linear ("push-pull" or "jab and pull"). This latter is an early Iroquois trait and is present on about 10 percent of the sherds found at the Howlett Hill site. The second decorative motif, that of opposed triangles on the collar, occurs less frequently than the first, being found on only about 5 percent of the vessels. This was executed in the cord-wrapped paddle technique and, in one case, it was found incised into the still-wet clay, foreshadowing the ceramics of the Chance Phase (Ritchie 1952; 1965:311-313). Body sherds are check-stamped in over 99 percent of the cases.

The overall impression given by the ceramics is one of a very early Iroquois level. This impression is confirmed by a radiocarbon date of A.D. 1380 ± 60 (Y-1689), which was obtained from charcoal in a large post mold associated with several sherds of a small vessel decorated with cord-wrapped paddle impressions. This date is 10 years earlier than the date obtained at the nearby Kelso site in Elbridge, New York (Ritchie 1965:308). This date was formerly thought to be somewhat late for the Oak Hill Phase in central New York, but the close agreement of these two dates suggests that A.D. 1380 to 1400 may be an accurate estimate for the time of occupation of these sites.

The archaeological remains indicate that subsistence was typical Iroquois mixed hunting, fishing, collecting, and farming. Food remains include a few kernels of corn, some hickory nut fragments, fish bone of unidentifiable species, and animal bone including deer and elk. The high acidity of the soil (pH 5.0-6.2) probably accounts for the small and poorly preserved bone sample. Hunting equipment consists of triangular arrowpoints of the Owasco Levanna type, Iroquois Madison type, and intermediate forms. The only possible horticultural equipment was represented by several roughly chipped adze-like implements and chipped stone discs 5 to 7 inches in diameter. Both these types implements could conceivably have served as hoes but the inference is by no means certain.

The few other tools found include splinter bone awls, a portion of a small spatulate weaving tool, thick-polled celt fragments, chipped ovate knives, and numerous pitted hammer and anvil stones. These tools were doubtless supplemented by implements of bone, antler, and wood which have since disintegrated.

Testing of nearby knolls and sandy spots as well as test pitting on the periphery of the village area failed to disclose any burials, unfortunately also the case on most other early Iroquois sites.

Work is now in progress at the series of related sites previously mentioned. It is hoped that these investigations will produce significant information concerning Iroquois cultural origins in central New York, population movements in prehistoric and historic times, and possible tribal identity of the early people under investigation.

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Garoga:

A LATE PREHISTORIC IROQUOIS VILLAGE IN THE MOHAWK VALLEY

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In attempting to reconstruct prehistoric cultures from their material remains, the archeologist relies heavily on analogies with historically documented groups. Such analogies seem especially cogent when the prehistoric culture under study persisted into the period of European exploration and settlement. In such a case, one is able to work backward in time from the culture of the period described in the early historical documents to that of the period immediately preceding. In New York State this "direct historical approach" can, of course, be applied to both the Iroquois and their Algonkian contemporaries.

It was with this in mind that major excavations were undertaken by the New York State Museum and Science Service in the summers of 1961, 1962, and 1964 at the large, late prehistoric Mohawk Iroquois village of Garoga. This work, under the overall direction of William A. Ritchie, was supervised by the writer in the field.

Garoga is located in Ephratah, Fulton County, New York, on Caroga Creek, about 8 miles north of the Mohawk River. The site, known to local people as "Castle Hill," covers the top of a high sand ridge, obviously chosen for its defensive advantages. On the north, east, and south sides steep slopes descend into ravines. On the west side a gentler slope allows easy access to the top of the hill. The total area of occupation comprised about 2½ acres.

Garoga has been known to collectors for over a century. Much work was done at the site by S. L. Frey, an amateur historian and archaeologist, in the 1880's and 1890's. His collection is now in the Fort Johnson Museum. Frey wrote a number of articles in which he described the site (e.g., 1898; 1938) and it is also mentioned in general works by Beauchamp (1900) and Parker (1922). Since the turn of the century, constant digging by collectors has virtually exhausted the once rich and extensive hillside dumps.

In 1905, systematic but limited excavations were carried out by M. R. Harrington (n.d.) for the Peabody Museum at Harvard. More than 50 refuse-filled pits were excavated at that time. In 1960, William A. Ritchie and the writer spent a week testing the site and exposing several pits and lines of post molds. They then decided to conduct more extensive investigations as part of a major study of prehistoric settlement patterns in the Northeast. The present owner, Mr. Wilford Sanderson of Loudonville, N.Y., who had preserved the site from large scale pothunting for over 20 years, generously consented to the State Museum explorations.

Garoga is the first large eastern Iroquois site of its period to be extensively and professionally explored with a view to obtaining settlement pattern data. In our three full seasons of work, a little over 1 acre of the site was exposed with the help of power machinery and small crews of undergraduate and graduate students from several colleges and universities. Further assistance was provided by a number of amateur volunteers. We were able to determine the major features of the village, although certain problems remain in the interpretation of the house outlines. Considerable quantities of artifacts and refuse bone were also recovered.

Near the readily accessible west end of the site, the ridge is only 90 feet wide. At this point, evidence was discovered of a double stockade which had protected the village from surprise attack. Both of the palisade lines were bow-shaped, curving at the ends toward the main village area. Between them was a corridor ranging in width from 6 to 15 feet. In each line was a gap about 2 feet wide which may have served as an entrance.

The surviving evidence for the palisades consisted of large post molds, which averaged 1 foot in diameter and were spaced about 15 inches apart. Holes had apparently been scooped out in the sandy soil to receive the butts of large posts, which in some cases were set 4 feet below the surface. The partially decayed remnants of two cedar logs, still in position below the plow zone, were also found. It seems likely that the stockade posts served as supports for a tightly interwoven network of withes and saplings, which would have created an impenetrable wall.

Within the village area, 6 definite and 2 probable longhouse floor patterns were uncovered, either in whole or in part. At least two more houses may have existed on the site. The houses ranged from 150 to 225 feet in length and averaged 20 feet in width. In all respects, these square-ended structures followed the pattern recorded for the historic Iroquois. Their arrangement, as suggested on a tentatively reconstructed map, is such as to make optimum use of available space on the hilltop. There is no apparent intersecting of house patterns within the area excavated.

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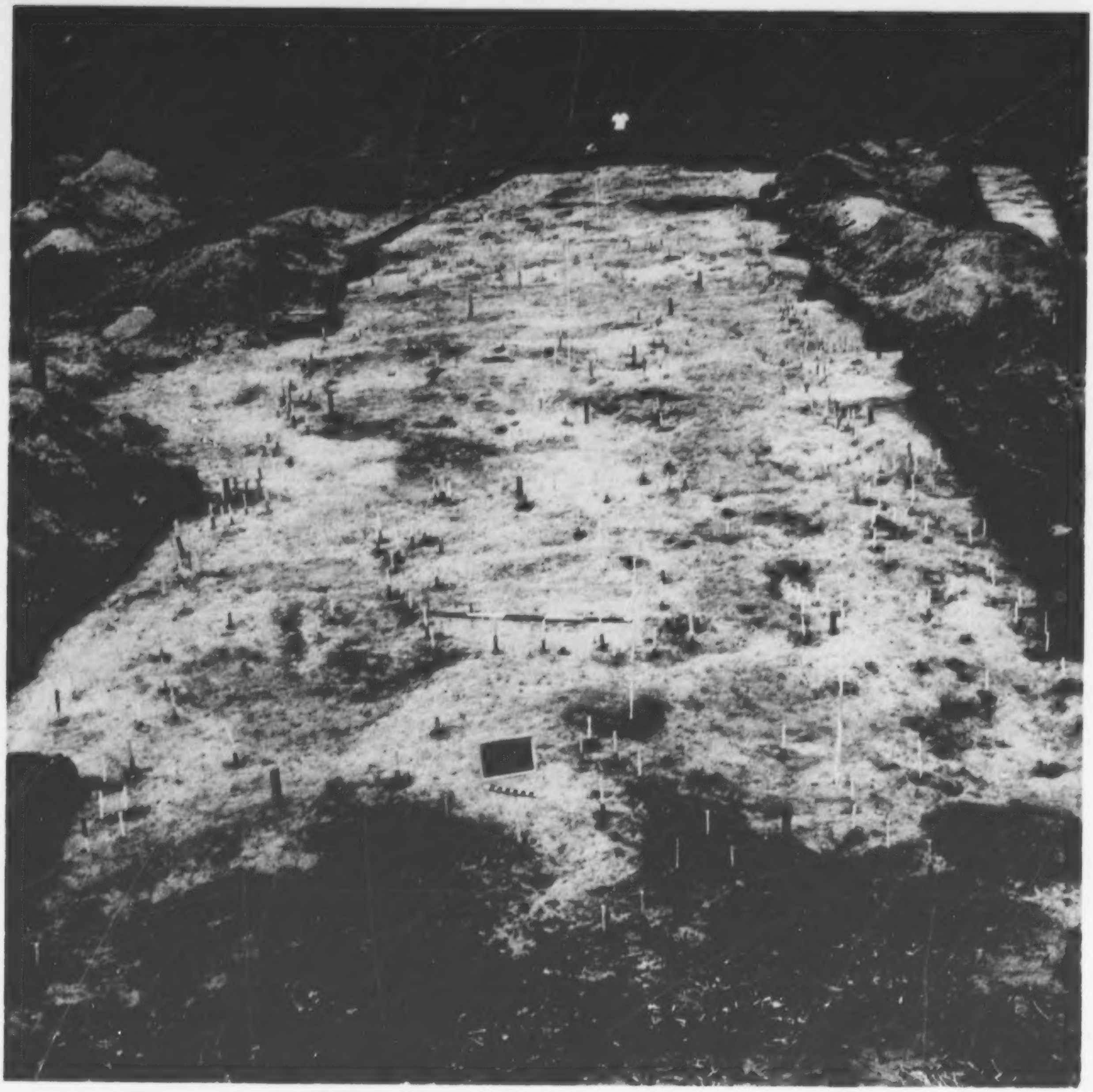

Garoga Site, Fulton County, New York. House 1 completely exposed except for east end (arrow) which was later uncovered.

Thus it is possible that the village was planned as a unit, rather than having grown by accretion. It is unfortunate, however, that we were unable to open up larger areas of the site, as the landowner had requested that several large clumps of pine trees be left unmolested. Thus there is some doubt about the outlines of two houses, which seem to be curved.

Each house had a central row of hearths, usually surviving as burned areas on the yellow sand subsoil. A row of interior support posts, apparently coinciding with a bedline or platform, paralleled each wall, at a distance of about 6 feet. Post molds in the outer walls were usually 3 inches in diameter. The support post molds averaged 8 to 10 inches in diameter.

Along the walls and beneath the platforms were deep, straight-sided pits filled with sand and varying quantities of refuse. Such features were probably originally constructed for the storage of corn and other foodstuffs. It seems likely that they would have eventually become infested with vermin, after which they were used for disposal of refuse. Quantities of charred maize were recovered from some of the pits. A few of the pits were lined with charred bark or grass.

Pits were also uncovered outside the houses. We have recorded more than 380 pits, averaging about 3 feet in diameter and 6 feet in depth.

The artifacts collected, whether from pits, hillside dumps or surface, are highly characteristic of late prehistoric Mohawk material culture. There is no convincing evidence for either earlier or later occupation of the site.

The principal ceramic form consists of globular-bodied jars of medium size. These have constricted necks and collared, castellated rims decorated with incised horizontal and oblique lines. The collars are notched along their lower borders. Surface color ranges from tan to dark brown, and the paste is hard. Vessels were shaped by the paddle and anvil method. The great majority of rim sherds conform to the Cayadutta Incised type; minor types include Fonda Incised, Wagner Incised, Otstungo Notched, and Rice Diagonal (MacNeish 1952). There are mere traces of such ceramic traits, as check stamping, which were more common in early Iroquois times (Ritchie 1952; Lenig 1965).

Relatively few pipes, all fragmentary, were found. They are predominantly of the so-called trumpet form, with collared bowls decorated with incised or linear-stamped designs.

Projectile points are of the thin, triangular Madison type. Other stone tools include celts, chisels, hammerstones, milling stones, mullers, and knives. Bone and antler harpoons with single barbs and line holes, bone awls, bird bone beads, and perforated deer phalangeal cones round out the inventory.

Of especial interest is a clay maskette about 3 inches high which is perforated for suspension. Its features are strongly reminiscent of the blower or whistler type of False Face mask.

As yet, food remains from the site have not been fully analyzed. However, preliminary study indicates that maize was the single most important item in the diet. A few charred nuts and seeds evince some reliance on wild plant foods. Bones of white-tailed deer and of elk, black bear, and turkey were prominent in the refuse, as were fragments of fresh water mussels.

The occupation of Garoga probably dates from the last half of the 16th century. A radiocarbon date of A.D. 1330 ± 100 years (Y-1381) was obtained on pit charcoal, associated with several Cayadutta Incised sherds submitted to the Yale Radiocarbon Laboratory. This date seems much too early, even when the plus quantity of the standard deviation is added to the central figure.

There have been persistent rumors of brass beads and other European trade goods found in the dumps by collectors. No such objects were unearthed by the explorations of the Peabody Museum or the New York State Museum. Yet some slight support for these stories is provided by a tiny piece of corroded sheet brass found in one of the post molds of House 2. Thus, the Garoga occupation may have lasted into the beginning of the protohistoric period in the Mohawk Valley.

The writer estimates that 600 people may have occupied the village. This suggested figure is based on several assumptions: 1) the number of houses is correctly placed at about eight; 2) the houses were simultaneously occupied; 3) two families shared each fireplace, as recorded in historical documents; 4) about eight hearths burned within a house at any given time; 5) the average size of the family was five persons.

Although there must be a large, associated cemetery somewhere in the vicinity of the site, our search of adjoining fields and ridges has failed to locate it.

The materials found at Garoga are similar culturally to those recovered at two other large village sites in the Mohawk Valley—Cayadutta and Otstungo. While not exactly contemporaneous, the occupations of the three sites probably overlapped in time.

In conclusion, Garoga appears to represent a typical late prehistoric Mohawk village. The site illustrates the culmination of native Iroquois cultural development that occurred just before the full impact of European trade and colonization (Ritchie 1965: 316-323). Further analysis and interpretation of the data from this site are being carried out, and a more detailed report will appear in a broad synthesis or northeastern settlement patterns now under preparation by William A. Ritchie and the writer.

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1965 Excavations at the Simmons Site:

A NIAGARA FRONTIER IROQUOIS VILLAGE

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The Simmons Site (Dep 3-4) is one of a group of three Iroquois villages located on the terraces of the Buffalo Creek, within about 1½ miles of each other in the Town of Elma, Erie County, New York. Each of these villages has been known to local archaeologists and collectors for at least a century and each has received sporadic attention in general statements about Iroquois archaeology in the Niagara Frontier. Material from the Goodyear Site has been analyzed in detail. Both typological comparison and small amounts of European trade goods found there indicate it was occupied sometime during the interval 1550 to 1600 A.D. (White 1961). The second site, Newton-Hopper, appears to be of precontact period and was probably ancestral to Goodyear (although this genealogical relationship has not as yet been substantiated by careful comparisons). The third, the Simmons Site, seems to have been occupied just after Goodyear, about 1600 A.D., and probably was a descendant of it (White 1960). This latter conclusion is based on superficial examination of the artifacts in private collections and those excavated by the Niagara Frontier Archaeological Project under the writer's direction in 1959 which was supported by a grant from the National Science Foundation. Excavations at that time were planned to recover a sample of cultural material sufficient to ascertain the period during which the site was occupied. These excavations also provided knowledge which leads to the further conclusion that Simmons is likely to be the most informative local site for investigating Iroquois settlement pattern in the early 17th century.

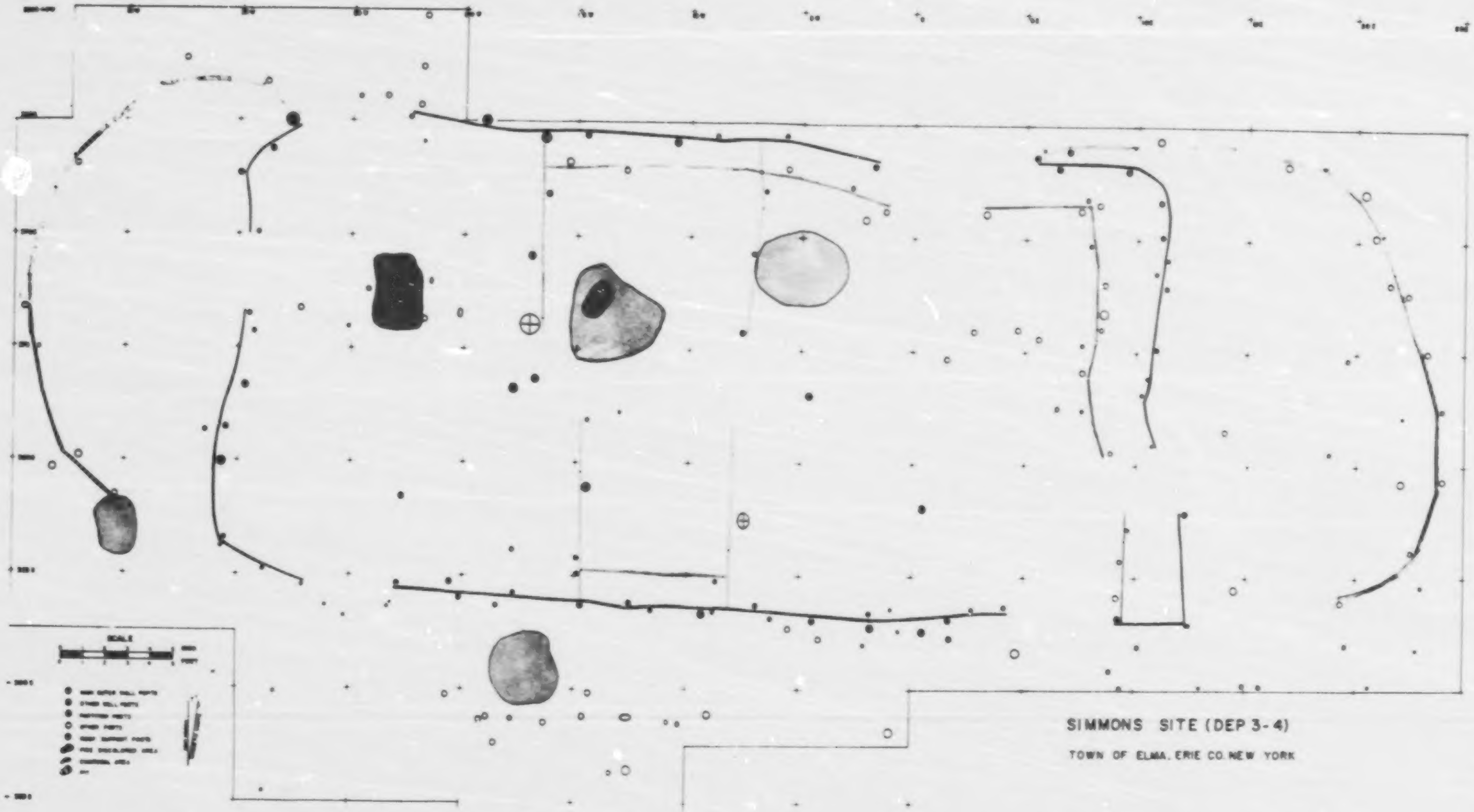
Further knowledge of the Iroquois settlement pattern at the dawn of historic times was of more than casual interest, as we had already completed settlement pattern studies on several earlier prehistoric sites that dated back to 900-1000 A.D. (White 1963, 1964). These earlier sites reflected changes that resulted from a greater reliance on farming, a dependence on horticulture which reached its aboriginal climax in Early Historic times. The Simmons Site held the promise of being representative of the semi-permanent sedentary settlement pattern, the result of 600 years of farming, but unaffected by the impact of European tools. Furthermore, it could be compared in detail with its two probable ancestral villages (Newton-Hopper and Goodyear) to ascertain the more minute changes that had occurred during the half-century of culture represented by these three villages. In particular, we hoped to be able to estimate population size, in order to measure the efficiency of the subsistence technology. Execution of this plan would require a number of seasons of extensive work in order to uncover as much of the village as was necessary to estimate population from the number and size of structures in it.

The cultural material at the Simmons Site was distributed throughout two patches of woods separated by a cultivated field which in earlier years had yielded many artifacts to the surface hunting activities of Mr. Charles E. Simmons. Since the woods had never been cultivated, it was possible to determine the approximate extent of the occupation from surface indications which had not been destroyed, as in the surrounding cultivated fields. We now estimate that approximately ⅓ to ½ of the site had never been disturbed by the plow. Although our mistake seems obvious in retrospect, we initially underestimated the size of the site by nearly half.

It was apparent that certain natural features had led to the selection of this particular location for the village, but that these features did not necessarily define the limits of the village. The village was built on an irregular rectangle of high ground, covering about 14 acres and separated from surrounding elevated areas, except for one narrow neck of land, by natural obstacles. On the west side, the area was protected by the terrace of Buffalo Creek, the terrace rising some 60 feet above the floodplain of the river. On the opposite side is a large swamp. A stream rising in this swamp circles the third side and had cut a deep gorge to the same level as the floodplain which it joins. These natural features nearly encircled the site. Since it seemed unlikely that the village covered the entire elevated "island," we set out to learn the extent of the village by tracing the palisade and at the same time searching for structures in that portion of the cultivated field available to us for excavation.

Palisade

The palisade was located by running trenches from the edge of the bank (which was in the woods) toward the center of the occupied area. These trenches were placed as far apart as our examination of the terrain suggested a possibility of locating the posts without excessive search-



SIMMONS SITE (DEP 3-4)

TOWN OF ELMA, ERIE CO. NEW YORK

ing. Usually our estimates were accurate, and our test trenches soon located the posts. Although these small test areas did not provide information on entrances or lengthy sections of palisade, they did serve to delineate the maximum extent of palisade in the time available. The palisade was traced intermittently over an area 916 feet in length in the west woods.

These text excavations indicated that the palisade in the west woods (where there was a precipitous drop) was built from a distance of 2.5 feet to 11.8 feet inside the crest of the bank. Twenty-seven measurements of this distance inside the crest were obtained. The average of these is 5.2 feet and the median, 4.8 feet. In some places only a single row of posts was found, but in others the line appears to have been double. There were no posts planted in holes dug for that purpose. Further analysis of the palisade posts must await excavation of more extensive areas.

As the palisade was followed along the bank in the west woods, the line of post molds made a turn at a right angle and then a second right angle turn, continuing generally in its original direction and following the contour of the bank throughout. At the second shift in direction the woods ended and there began the cultivated field, with the usual border of brush creeping into the edge once under cultivation. In this area, we were unable to trace the palisade with the same techniques we had used in the wooded area and, at first, were unable to find the palisade either along the edge of the cultivated field or to intersect it if it turned away from the bank. This problem forced us to make certain experimental excavations to compare techniques and observations in the woods with those in a cultivated field.

While we were tracing the palisade in the west woods, part of the crew was searching for settlement pattern in the cultivated field. The field held a thick stand of alfalfa which had had its first cutting just before our work began there. We put in a number of test squares through the alfalfa stubble and down to the subsoil to examine the latter for postmolds. Since the topsoil was so hard and the subsoil so dry by the time it could be cleaned our search had little chance of finding any structures. We checked this impression by examining the difference in soil conditions in two trenches where cultivated and uncultivated soils were in juxtaposition. We found that the cultivated soil was dry and hard, with an accumulation of shaly particles forming a layer at the junction of topsoil and subsoil. The uncultivated soil with forest cover was soft and moist, and disturbances such as post molds and animal burrows were clearly visible. Since the area is one of weak podzols, leaching has contributed to the difficulty of finding post molds under any conditions.

The best solution to the problem of locating structures in the cultivated field was to plow and disc that part of the cultivated area we wished to excavate as soon as there was sufficient rain to allow cultivation. This work loosened the soil so that moisture could more easily penetrate to the subsoil and also facilitated removal of the topsoil either by shovel or power machinery. Once we had done this, we easily traced the palisade as it turned away from the bank and entered the cultivated field. It seems doubtful that we could have traced the palisade without power machinery to remove the topsoil to a depth just above the subsoil.

House Structure

A structure was located in the cultivated field 200 feet north of the palisade. Since this structure can be regarded as an intact unit, it will be described in detail.

A north-south trench disclosed segments of two rows of post molds about 22 feet apart and running east and west. Both size and direction suggested that this was probably a longhouse. Therefore, the rows were followed in each direction, removing all the soil between. The topsoil was shoveled or removed by high lift. Plastic was used to keep the soil moist until final skinning by shovel. The post molds were then measured, described, and probed for depth. After ascertaining that little additional information and no cultural material was resulting from such a tedious expenditure of labor, very few were cross-sectioned. We judged that the mistaken identity of a few stains would be of little consequence as long as the pattern of a structure was clear, and that the error in assigning all post molds to the structure may be just as great as misidentifying a few stains.

The longhouse was a rectangular structure about 41 feet in length and 22 feet in width. Semicircular storage areas on each end increased the length to 63 feet.

The pattern of the posts which supported walls and benches was quite irregular and may indicate that the walls themselves wandered. The spacing between posts was uneven and no system of regular alternation between posts on the outside of the wall compared to posts on the inside was detectable. Still the posts scatter along certain lines and show considerable uniformity of size and depth along these lines. Figure 1 shows all stains considered to be products of human behavior. Lines have been drawn outlining certain groups of molds which seem to be structural features. But this is only one possible interpretation; these lines could have been drawn according to any one of several variations.

In Figure 1, 50 posts shown as solid black circles have a depth of 0.3 feet or more below the surface of the subsoil. Because of their pattern and depth, these probably were the main supports for the outer walls. (The storeroom walls, however, were composed of fewer posts.) These main support posts vary from 0.15 to 0.675 feet in diameter and from 0.3 to 1.19 in depth. The average diameter is 0.245 feet, with a standard deviation of 0.087. The average depth is 0.618 feet with a standard deviation of 0.221.

Other posts apparently formed part of these walls, but were eliminated from the category of main supports because they were too shallow (less than 0.3 feet in depth) or too small (less than 0.15 feet in diameter). Ten of these are shown in Figure 1 as circles with dotted centers. These ten average 0.2 feet in diameter and 0.26 feet in depth. While the difference between the average size of main support posts compared to secondary posts suggests a sharp distinction between the two classes, there are some intermediate examples. The size and consequently the classification of these borderline cases may have been affected by the depth at which the floor was cleaned. There is generally a division into two groups on the basis of dimensions.

The south wall of the house contains 26 posts, in contrast to 14 in the north wall. Two sections near the corners of each long wall have gaps which may be doors. The northwest opening measures 5 feet and is on either side of 365S-25W in Figure 1. Three posts just north of this point seem to be part of the structure around the door, possibly a windbreak or entryway rather than a wall. This interpretation is favored because of a comparable situation in the southwest corner. Here an opening of 6 feet has a semicircle of posts outside in a similar manner. The third door, the southeast door, measures 5 feet and the fourth, the northeast, 7 feet. All doorways except the northwest are clearly set in from the corners, and the corners give the impression of being rounded rather than square. Other gaps in the north wall are nearly as long as some designated doors, and the opening in the northeast corner seems excessive. However, the soil in the vicinity of the north wall was less favorable for observing postmolds since it consisted of gravel and heavy shale, and some molds may not have been seen. In addition, posts may have been more infrequent due to the rocky soil. Although there is no way of assessing the effect of these two factors on the north wall, it can be noted that soil conditions were most unfavorable for finding molds around the northeast door.

The southern wall west of the door had an abundance of posts. These may represent a repaired wall or may be part of a row of posts going off to the southeast. Excavation of the surrounding area will be necessary to clarify this.

Within the houses there was evidence of two fireplaces and a storage pit. Neither fireplace contained remains of fire-cracked rocks. They apparently represented the bottoms of fireplaces, with only the discoloration and ashy soil of once larger fireplaces remaining. The lens within the fireplace of 375S-15W was black and charcoal-laden within a red matrix.

A third fireplace may have been located near the east end in Sections 380S-0E, 380S-5E, 375S-0E, and 375S-5E. Although there is no direct evidence (such as discoloration) for this, the semicircle of four or more molds in line with the other fireplaces is quite suggestive. Further, three fires distributed along the length of the interior is a more likely placement than two fires located in less than half the length.

The pit in sections 375S-10W and 375S-5W was oval in outline and bowl-shaped in cross section. It was 4.2 feet east-west by 3.3 feet north-south, and the bottom was 1.1 feet below the subsoil. The surface was mottled from dark-stained refuse soil, tan sand, and charcoal. In cross section these appeared as strata—from top to bottom—of tan sand, dark-stained refuse soil, brown soil and ash. Since the strata varied in thickness and covered different portions of the pit, the fill appeared to have been thrown in rather than to have been the result of natural deposition. Since no tan sand was noted in the vicinity of the house, it may have been brought from outside the house and thrown on top of the pit to fill it. Within the pit were a few splintered bones, potsherds, and a bone bead, as well as 3 quarts of rocks. This was probably a refuse pit, although it could also have been used for storage without there being any traces of such use. Evidence that it is contemporary with the house is indirect: the absence of molds in the pit itself and the manner in which posts circumvent the pit.

The above-mentioned features were placed closer to the north wall than to the south, leaving an open corridor about 3-4 feet in width the full length of the center. Three posts were located in this corridor and these, together with two more shown in sections 385S-25W and 385S-0W, may have been interior roof supports or poles for suspending provisions and gear.

Two other patterns of molds are probably related to structural features within the house. The first class consists of molds which are not part of the walls but which represent single rows of widely-spaced posts perpendicular to the walls. These are shown in Figure 1 as crossed circles. One possible interpretation of them is that they served as partitions dividing the house into sections. This interpretation is shown in Figure 1 by the crossed lines and is the one favored here, although other explanations may be equally likely.

Two staggered lines divide the house about ⅓ of the way from the west end. The space between these may have served as an entrance between sections of the house. All posts assigned to these partitions are deep, ranging from 0.4 feet to 0.86 feet.

Less convincing is a possible partition east of the center of the house in 375S-10W and 370S-10W and south of there in 385S-10W. Very few posts make up these partitions. One argument in favor of this interpretation is that a three-way division of the house corresponds to the number of fires and pits. Against this explanation as the location of partitions is the disproportionate sizes of the three parts. An alternate explanation might be that these rows supported benches which were 7 or 8 feet in width. Still another might be rows of supports for hanging household goods.

Narrow benches may have been built along the north wall in the center and east sections and inside the east end of the house. Less definite is a similar structure in the center section of the south wall. If the interpretation is correct, the north and south part of the house are not symmetrical. This raises a problem as to the number of families per fire. Symmetry would support the claim that two families used a fire. Confirmation of many of these interpretations may come when more houses have been excavated.

Entrances from the end sections of the house into the storage areas at the ends may have existed in 375S-30W and 380S-10E. The construction of the two storage areas differs. The one at the east end is composed of about twice the number of supports, only three of which are shallower than 0.3 feet. Within this storage area, three deep posts may have formed a tripod for suspending heavy items, such as a deer carcass. Entry may have been through any of several widely-spaced posts. The west storage area was built around shallow, widely-spaced posts. A pit was located partly in and partly out of the storage area. If the pit is regarded as contemporaneous with the house, then the pit probably was in an entrance. This pit was 2.7 feet long and 1.75 feet wide. Its oval mouth had sharp, black edges and a lighter interior. The pit was only 0.5 feet in depth and was lined with dark refuse soil 0.3 feet thick. In the center of the pit was light, clean, sterile soil. The refuse soil was filled with large pieces of charcoal burned elsewhere, a few flint chips, potsherds, and several decayed fragments of either shell or burned bone. A third pit was just outside the center of the house on the south. A row of posts outside this may have formed a shed over it. This pit was 3.15 feet by 2.9 feet and 0.5 feet in depth. It was nearly devoid of cultural data. All three pits seem to have been used as shallow refuse pits rather than as storage pits.

Comparison of this longhouse with others from Iroquois sites adds little to our interpretation of this structure. Although this house is short in comparison to most that have been excavated on Iroquois sites, no conclusion can be drawn from this because the sample of houses at the Simmons Site (as at most comparative sites) consists of only one house. Excavations here over the next few years are intended to increase this sample size.

Acknowledgments

For permission to excavate the Simmons Site we are indebted to the Regent Sand and Gravel Corporation of Buffalo, owners of the property. Mr. Sam Burman was most cooperative in making arrangements for us to have access to the site and to destroy part of his alfalfa crop. We wish to acknowledge our debt of graditude to Charles E. Simmons, who throughout his life protected this site from careless looting and who took us to the site for the first time. It is largely through his efforts that one Iroquois village in the Niagara Frontier still has portions undisturbed by random digging. John Carbonara was assistant director of the field work. The project was done as part of the archaeological field school, Summer Sessions, State University of New York at Buffalo.

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The Longhouse at the Cornish Site

Charles F. Hayes III, Rochester Museum of Arts and Sciences

For a second season, the Anthropology Division of the Rochester Museum of Arts and Sciences excavated at the Early Historic Seneca Cornish site (Hne 9-2) in West Bloomfield, Ontario County, New York. The 1965 project was a continuation of work that started as part of the 1964 field season. The site is located about 30 miles south of Rochester, N.Y., at the southern edge of the central lowlands which border Lake Ontario. These lowlands are characterized by drumlins and unconsolidated glacial material.

The Cornish site itself lies on an irregular promontory 600 feet by 150 feet, orientated nearly north-south. There is a ravine 10 to 15 feet deep on the eastern side, and one on the western side of the site. At the bottom of each ravine is a small stream. These streams converge at the southern end of the site in a swampy area. Plowing has been infrequent on the site and probably has not occurred in the last 50 years. At present the site is covered with areas of open grass and occasional clumps of sumac.

The excavations in 1964 produced an artifact sample as well as indications of a settlement pattern (Hayes 1965a). Two palisades 48 feet apart ran in Northwest and Southeast directions across the site at the southern end. A complex of post molds was found directly over the northernmost palisade line and is believed to have been a small house or food storage area. The structure was oval and measured 32 feet by 10 feet. Two pits within and two just outside the west wall contained refuse bone, potsherds, and a few fragments of charred corn. Three other pits were found along the southern palisade line and had similar contents. The superposition of the structure over a palisade indicates different periods of construction which have not yet been temporarily defined. Aside from this area on the southern end of the site, the Museum crew tested refuse concentrations and the cemetery which had been located at the northern end of the site. The latter had been previously dug by several local collectors. No new burials were found, but there is documentation on some of the graves. Approximately 50 individuals have been recorded from this cemetery.

Encouraged by the settlement pattern data of the 1964 season, it was decided to make a sustained effort in 1965 to expand this information by making tests in the center of the site where there could possibly be a longhouse. If such a structure could be found on a site having minimal topsoil disturbance, it might be possible to obtain better measurements than were found on the only other Early Historic Iroquois site in the Genesee region (Guthe 1957; 1958) where a settlement pattern has been documented.

The analysis of the artifacts recovered both in 1964 and 1965 has not been completed, but initial observations indicate that the inventory compares favorably with that of other Seneca villages of the early 17th century. Scattered collections from the Cornish site have been studied in the past by both Ritchie (1954:70) and MacNeish (1952). Nothing at this point in the interpretation of the data would alter their conclusions.

The Longhouse and Its Associated Structure

A test section on the highest point of land on the site revealed post molds that represented probable structural lines. A decision was made to concentrate excavation in this area in 1965. After 5 weeks of effort a longhouse was outlined (Feature Five) along with an associated structure (Feature Four).

Auxiliary structure to the longhouse. (Feature Four). At the same time as the initial discovery of post molds which later turned out to be part of the east wall of a longhouse, scattered post molds were found in the same test section just to the east of this wall. It was thought that these post molds represented another structure, possibly a longhouse, which had been constructed prior to or subsequent to the longhouse (Feature Five). Investigation of this post mold concentration, however, indicated no structural lines orientated in any one direction for a significant distance. It was noted, however, that occasionally paired post molds were present. Four pairs arranged in an irregular pattern were found. The post molds in one pair were 9 inches and the three other pairs were 12 inches apart. A total of 23 post molds were identified in Feature Four. They ranged in diameter from 2 to 4.5 inches with an average of 2.9 inches. The posts had been driven into the yellow subsoil 2 to 6 inches with an average of 3.9 inches. With an average topsoil of 7.9 inches over the area, it is estimated the average post mold was 11.8 inches below present ground surface. All post molds were "V"-shaped in cross section, were driven in vertically and con-

page 90 blank.

tained grey soil flecked with charcoal and/or black organic matter.

An oval hearth 28 inches in diameter outside Feature Four 5 feet to the northeast was found. It consisted of fire-reddened earth, basin-shaped in cross section, and extended to a maximum of 3.5 inches into the yellow subsoil. Within the feature were two small, circular pits with rounded bottoms and cylindical in cross section. One pit was 7 inches in diameter and extended 10 inches into the subsoil, or 17.9 inches below ground surface. The other pit was 18 inches in diameter and extended 5 inches into the subsoil, or 12.9 inches below ground surface. Both pits contained fragments of bone, flint, and pottery.

Later in the field season it was noted that refuse bone, artifactual remains and fire-cracked rock were in a higher concentration in the vicinity of Feature Four than in sections of the same dimensions in the longhouse area. At the moment, the most plausible interpretation for Feature Four seems to be that it may have been an auxiliary structure to the longhouse (Feature Five). It could well have served as a food preparation and/or above ground storage area, covering a space 15 feet by 20 feet.

The longhouse (Feature Five). At the outset of field work, test trenches and test sections were staked out as a result of data gained during the 1964 season. One 10 × 10 foot test square on the highest point of the site indicated post molds representing former structural lines. The decision was then made to concentrate excavation in this area approximately in the middle of the site. In this location was found the fifth major feature of the site. It was a longhouse orientated on a north-south axis with a presumed front entrance at the northern end. The overall dimensions of the structure were found to be 65 feet by 20 feet.

All measurements were made from center to center on the post molds. Depths of post molds and pits were measured from the surface of the subsoil. It is necessary to add the average topsoil depth of 7.9 inches over the area in order to obtain the probable depth below ground surface. Other than some plowing it is believed that the area has not been disturbed enough to significantly alter any depth measurements. All post molds were "V" shaped and presumably driven or twisted into the ground vertically. Some post molds contained fragments of pottery and bone and were characterized by a grey fill flecked with charcoal and/or black decayed organic matter. There was no apparent rebuilding, a fact which makes this site rather unique.

Longhouse (Feature 5)—Wall Measurements

	NORTH WALL	SOUTH WALL	EAST WALL	WEST WALL
Length	20.3′	20.5′	65.3′	64.4′
Average Post Spacing	26.9″	26.2″	43.8″	43.1″
Range of Post Spacing	15.0″-35.0″	23.0″-30.5″	32.5″-56.5″	38.0″-46.0″

Longhouse (Feature 5)—Post Mold Measurements (In Inches)

	NORTH WALL		SOUTH WALL		EAST WALL		WEST WALL	
	Range	Average	Range	Average	Range	Average	Range	Average
Major Posts:								
Diameters	1.5- 3.5	2.8	2.0- 3.0	2.6	2.0- 4.0	3.3	2.2- 4.0	3.3
Depths Below Subsoil Surface	1.5- 4.0	2.8	1.5- 5.5	3.8	3.5- 7.0	4.8	3.0- 5.3	4.2
Depth Below Ground Surface	9.4-11.9	10.7	9.4-13.4	11.7	11.4-14.9	12.7	10.9-13.2	12.1
Supporting Posts:								
Diameters	2.5- 3.5	1.5	2.0- 3.0	2.3	1.8- 4.0	2.6	2.0- 3.0	2.5
Depths Below Subsoil Surface	None	1.5	2.0- 4.5	3.1	2.0- 5.0	3.0	.8- 3.0	1.9
Depths Below Ground Surface	None	9.4	9.9-12.4	11.0	9.9-12.9	10.9	8.7-10.9	9.8

The North Wall

Including the northwest and northeast corner posts, there were nine major posts across the presumed front of the structure. An entrance in the center measured 54 inches wide. The only two supporting posts identified were those paired with the major posts on each side of the entrance. Both were placed obliquely to the main post line. One was 5 inches outside and the other 8 inches inside the wall. It is believed that there were probably supporting posts paired with the other major posts, but either they had not penetrated the subsoil or the red clay cap in the subsoil precluded their identification during the excavation.

The South Wall

Including the southwest and the southeast corner posts, there were 9 major posts across the southern end of the structure. An entrance in the center measured 63 inches wide. Two small post molds within this entrance indicated the possibility that some sort of removable panel might have at one time been placed there. The southeast corner post had two supporting posts, both set obliquely 8 to 9 inches outside the main post line. Two other major posts were found to have supporting posts also set obliquely 6 to 12 inches outside the structure.

The East Wall

Excluding the northeast and the southeast corner posts, there were 17 major posts along the eastern wall. Ten supporting posts were found to be paired with major posts. Two supporting posts were placed obliquely 4 to 12 inches outside the wall and eight were placed obliquely 5 to 16 inches inside the main structural line. Extending 11 feet south of the southeast corner post were four post molds, perhaps indicating some sort of wall extension that had never been completed. A single post was found 23 inches directly north of the northeast corner post.

The West Wall

Excluding the northwest and southwest corner posts, there were 17 major posts along the western wall. Six supporting posts were found to be paired with major posts. One major post had two supporting posts. All supporting posts were set obliquely 7 to 15 inches on the interior of the main structural line. The difficulty of identifying small post molds in the red clay cap characteristic of the northwest corner probably accounts for the fact that the supporting posts were all found in the southern half of the structure.

Possible Interior Structural Lines

Enough interior post molds were found to allow some speculations on other structural details. These post molds ranged from 1.8 to 6.0 inches in diameter, with an average of 3.0 inches. Depths below subsoil surface ranged from 1.3 to 12.0 inches with an average of 4.1 inches, or 12.0 inches below ground surface.

Two possible identifiable interior post mold lines ran generally parallel to both the east and the west walls. These posts probably represent bunk and/or compartment features. Nearly-straight lines of nine post molds on the east and two on the west ran parallel to the walls and extended 2.5 to 3.0 feet out from them. Still two other nearly-straight lines, six on the east and nine on the west, ran parallel to the walls and extended 5.5 to 7.8 feet out from them. Not enough posts were found to give a good idea of just how far apart and with what regularity these posts had been placed. At the northern and southern ends of the structure were areas approximately 6 to 7 feet long, probably representing vestibules. It is estimated that the central corridor was about 6 feet wide. On the basis of the 4 hearths it can be supposed that there were at least 8 living compartments, representing perhaps 8 families, with a total of around 50 inhabitants.

Hearths Within the Longhouse

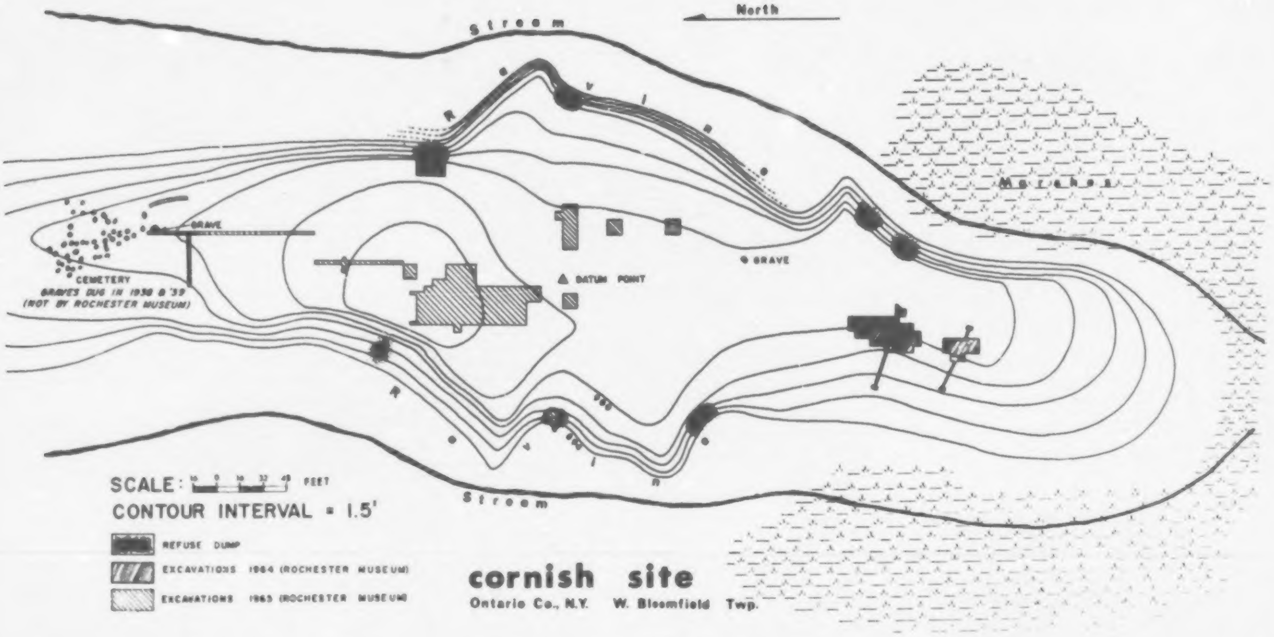
Four centrally located hearths were found within the longhouse floor pattern. The only evidence for these hearths was a fire reddened patch of subsoil oval or circular in shape. None of the hearths had been originally dug, nor was there any appreciable amount of charcoal or firecracked rock immediately above them. Plowing had undoubtedly redistributed material in the upper portions of the hearth. The small amount of charcoal and firecracked rock, even in the vicinity of the hearths, and the lack of wall rebuilding indicates that this structure was not occupied for a great length of time.

Two hearths were circular and two oval in shape. They ranged in diameter from 24 to 45 inches and their centers were all 10 to 11 feet from the east or west walls.

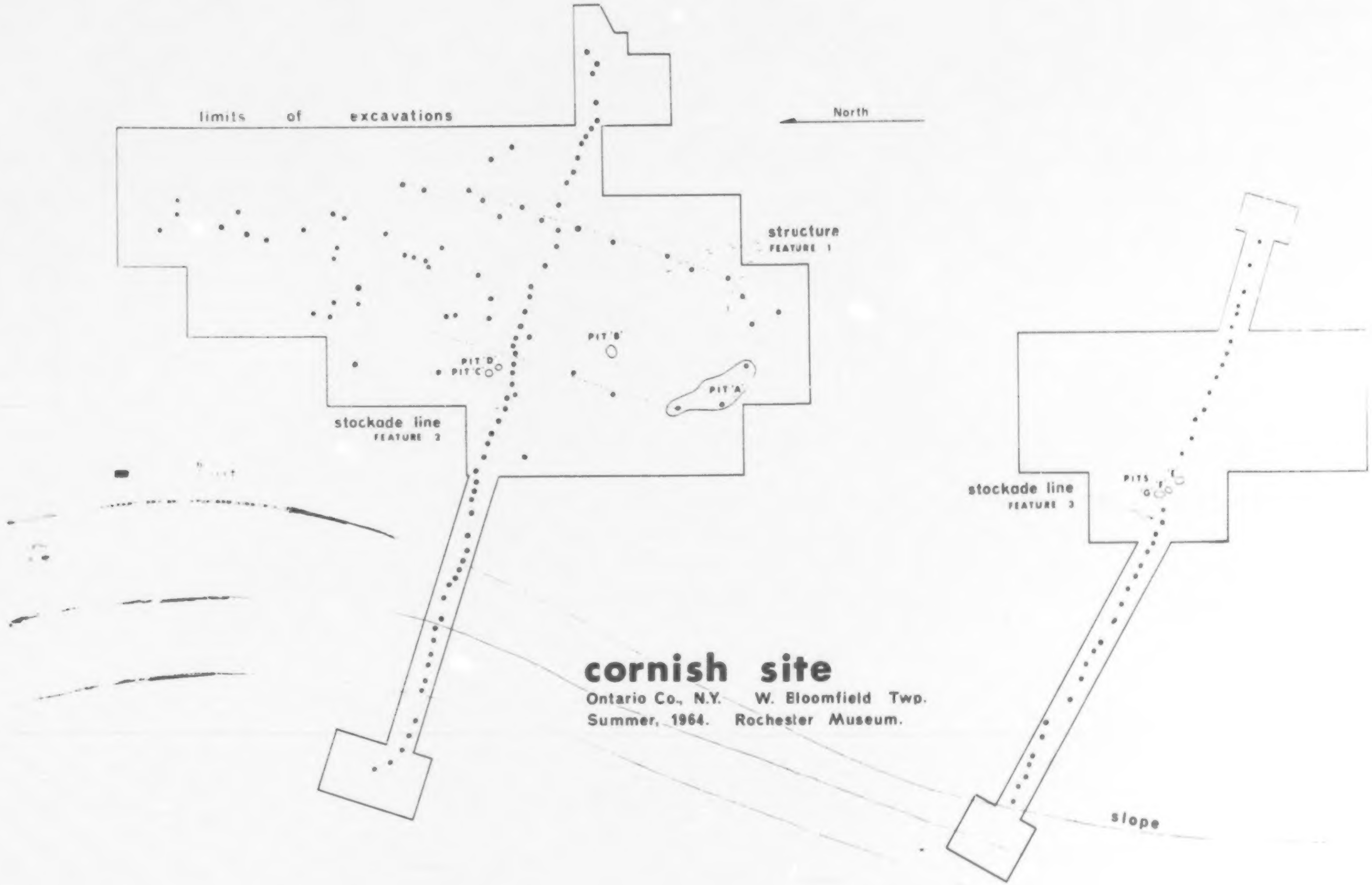
Pits Within the Longhouse

Located within probable storage areas in the longhouse floor pattern were 27 pits of a rather unique nature. They were grouped, in some instances, into irregular arrangements. One cluster of five was situated between Hearth 1 (at north end) and Hearth 2 (in a storage area). Another cluster was found between Hearths 2 and 3. Two pits were in a storage area on the west wall and three were in a similar area on the east wall. A cluster of three pits was found between Hearths 3 and 4 on the west, and two were on the east wall line. At the southern extremity of the longhouse, two clusters of five pits and a cluster of two were found. These were placed just to the south of Hearth 4 in another probable storage area.

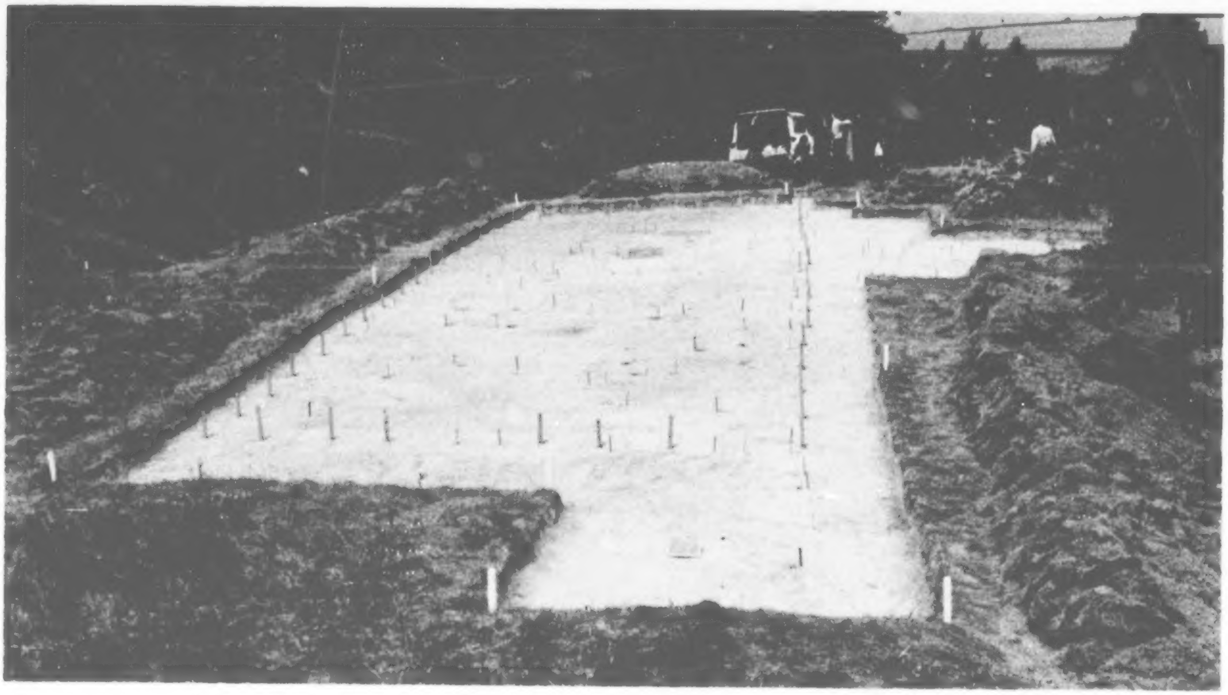
Pit diameters ranged from 4 to 11 inches with an average of 5.4 inches. Depths ranged from 2 to 21 inches


North
Stream
Ravine
Marshes
GRAVE
CEMETERY
GRAVES DUG IN 1938 & '39
(NOT BY ROCHESTER MUSEUM)
DATUM POINT
GRAVE
Ravine
Stream
SCALE: 16 0 16 32 48 FEET
CONTOUR INTERVAL = 1.5'
REFUSE DUMP
EXCAVATIONS 1964 (ROCHESTER MUSEUM)
EXCAVATIONS 1965 (ROCHESTER MUSEUM)
cornish site
Ontario Co., N.Y. W. Bloomfield Twp.

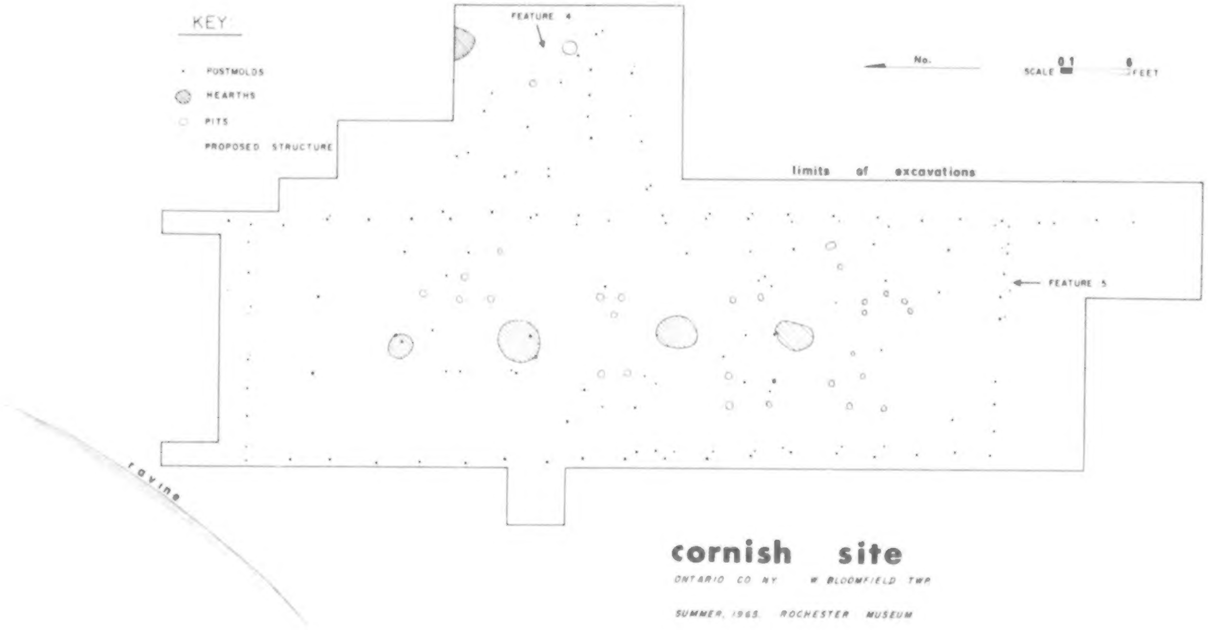
Overall Map of Cornish Site


limits of excavations
North
structure
FEATURE 1
PIT 'B'
PIT 'D'
PIT 'C'
PIT 'A'
stockade line
FEATURE 2
stockade line
FEATURE 3
PITS
cornish site
Ontario Co., N.Y. W. Bloomfield Twp.
Summer, 1964. Rochester Museum.
slope

Post mold patterns showing structure (Feature 1) and two palisades (Features 2 and 3



View of Completed longhouse excavation (looking north). (Features 4 and 5).


KEY
POSTMOLDS
HEARTHS
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PROPOSED STRUCTURE
FEATURE 4
No.
SCALE 0 1 6 FEET
limits of excavations
FEATURE 5
ravine
cornish site
ONTARIO CO NY W BLOOMFIELD TWP
SUMMER, 1965 ROCHESTER MUSEUM

Overall Map of Cornish Site

below subsoil or, with the addition of 7.9 inches average topsoil depth over the feature 9.9 to 28.9 inches below present ground surface, an average of 18.8 inches.

Twenty-three pits were circular in shape at the top. One of these was slightly expanded at the base, three were basin shaped, and the remainder cylindrical in cross section with rounded, or in the case of four, somewhat "V"-shaped bottoms, with tapering sides.

Three pits were oval in shape at the top. One was cylindrical, one basin shaped and one "V" shaped in cross section.

A single pit was rectangular shaped at the top, cylindrical in cross section and had a rounded bottom.

Only one other longhouse has been excavated in the Genesee region. In 1956, Dr. Alfred K. Guthe and Dr. Marian E. White of the Rochester Museum investigated the Factory Hollow site, also in the township of West Bloomfield, 3 miles to the northwest of the Cornish site (Guthe 1957, 1958). Found here was a floor pattern orientated on an east-west axis and measuring approximately 56 feet in length and 23 feet in width. Two centrally located fire beds were also found. Unfortunately, extensive rebuilding precluded any definite measurements of structural lines. It is interesting to note, however, how close are the overall dimensions of both longhouse excavations.

With the establishment of this archaeological data on longhouses of the Early Historic Iroquois A.D. 1590 to 1615, there still remains the problem of defining longhouses on sites of the Prehistoric Iroquois in the Genesee region. On the basis of information from central and western New York obtained by other investigators, the author believes that a continuity *does* exist (Hayes 1965a). It can be demonstrated by a concentrated effort to locate settlement patterns on both known or as yet unlocated sites of the Late Woodland in the area.

Acknowledgments

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Finally, the landowner, Leo Hammond, merits thanks for his permission to conduct investigations on his property.

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Type and Attribute Analysis:

THEIR APPLICATION TO IROQUOIS CULTURE HISTORY

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An accurate chronology is a prerequisite to the reconstruction of culture history and, therefore, the techniques used in arriving at the chronology are of vital concern to the archaeologist. The two techniques which have been most effective in establishing chronologies based upon artifacts are type analysis and attribute analysis. Both techniques, however, possess certain inherent strengths and weaknesses, and in view of the rapidly increasing body of data in Iroquois studies it is necessary to evaluate the relative usefulness of the two approaches in exploiting the full potential of these data.

The term "type" has acquired a number of meanings, but for the purposes of this paper it is regarded as "a group of objects exhibiting interrelated similar features which have temporal and spatial significance" (Ritchie and MacNeish 1949:98). An attribute is a qualifiable and, therefore, quantifiable single feature. Rouse's term "mode," which is regarded as an historically significant attribute and conforms to the four criteria of definition, invariability, frequency, and distribution (Rouse 1939: 26-27), is implicit in attribute analysis as a technique for establishing chronologies. Innumerable attributes must be tested for their potential historical significance, however, and the succcess or failure of these tests will, in part, depend upon the comparative body of data and the intensity of the analytic method. It is thus necessary to record attributes before their historical significance can be accurately evaluated, and for this reason the concept of mode is incorporated into the more inclusive term " attribute."

A central tenet of current Iroquois research in archaeology is the *in situ* theory, which proposes that the historic Iroquois tribes, including the Huron, Petun, Neutral, Erie, and Susquehannock, evolved locally from a relatively common Middle Woodland base (MacNeish 1952: 89). The evidence for the theory is derived from seriated rim sherd types used in conjunction with the direct historic approach (MacNeish 1952; Ritchie and MacNeish 1949). Although many of the general proposals of the *in situ* theory have received qualified acceptance there has been criticism of the pottery types (Pratt 1960), and this dissatisfaction has been reflected in the supplementing of MacNeish's typology with attribute studies, revised pottery types, and new pottery types (White 1961; Pendergast 1964; Lenig 1965). As a result of new data there has been an understandable proliferation of pottery types as well as revisions of MacNeish's types. Some of the revisions retain the original pottery type name and incorporate additional attributes which are regarded as significant. Other revisions set up new types which incorporate all, or a portion, of the attributes represented in the earlier pottery type or types. Although such adjustments are a necessary reaction to the increasing body of data they are also responsible for a breakdown in communication whereby each researcher becomes involved in a myriad of local pottery types, some of which are synonyms while others, having the same type name, possess different attributes. The continuation of such a process is almost unavoidable in type analysis and can only result in an increasing lack of communication between the various scholars working on problems of Iroquois prehistory—a situation that I believe all would agree is quite undesirable. It is in view of these problems that the following examination of the strengths and weaknesses of type analysis and attribute analysis is made in order to evaluate the relative worth of each technique in handling both the current and future bodies of data pertinent to Iroquois prehistory.

Type Analysis

The strengths of type analysis are the reduction of a large body of data to manageable proportions and the expression of general time/space relationships which allow the formulation of chronologies and the tracing of patterns of cultural change.

The weaknesses of type analysis appear to be five-fold. First, the type, consisting of certain specific attributes, tends to "pigeon-hole" the individual attributes whose trends extend beyond the type, thereby disrupting continuities in time and space. This weakness is particularly troublesome when attempts are made to trace the evolution of Iroquois ceramics from Middle Woodland ceramics, and a researcher must work with two or three rim sherd typologies (Iroquois, Owasco, Point Peninsula, or equivalents). Second, the range of attribute variation within a type often results in types not being clearly exclusive from one another, thereby creating a situation where the same sample can be classified somewhat differently by two researchers. Third, the association of attributes within a type increases the chance of researchers classifying the same sherd differently by giving different diagnostic weight to the various attributes making up the type. Fourth, the advent of new data continually demands the

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revision of the established types which are closed systems and are, therefore, incapable of supporting changes which modify their original definition. And fifth, the attempts to incorporate new data into the established typology disrupts communication by creating a host of new types, revised types, and additions or deletions of certain attributes under an earlier type name or new designation.

An effective solution of the weaknesses inherent in type analysis is difficult to find. A central ceramic laboratory and periodic conferences for the revision of types may be ideally feasible, but such schemes call for an unrealistic degree of cooperation. In addition, the continual revision of types requires a constant reanalysis of previously reported materials in order to maintain the necessary body of comparative data. In view of the current problems facing Iroquois research the only solution that I can see is to discard type analysis in favor of attribute analysis.

Attribute Analysis

The strengths of attribute analysis are consistency or invariability, continuity, and accuracy. Consistency is essential for accurate communication and, therefore, accurate comparisons. Although it is still possible to misidentify certain attributes, such as linear stamping for incising, the chance of error is markedly reduced when dealing with a single attribute as opposed to the series of attributes, each possessing a range of expression, found in a type. Attribute analysis is more effective in maintaining the continuity of trends through time and space since the trends are not disrupted by a forced relationship with other attributes (type) which may reflect differing degrees of temporal and spatial significance. As the attribute is ideally the smallest definable feature, it should be the most accurate unit of analysis and, therefore, the most sensitive indicator of time and space relationships. The anticipated body of attribute data could eventually be categorized into general Pan-Iroquois attribute constellations or, possibly, Pan-Iroquois types to allow for simplicity of communication. Indeed, in a very real sense, doing type analysis prior to attribute analysis is putting the cart before the horse. Finally, the attribute is more amenable to data processing than the type and data processing will probably play an important role in the future of Iroquois archaeological analysis.

The weakness of attribute analysis lies in the number of possible attributes to be considered. Thus, a situation could arise where the forest could not be seen for the trees. And, as with the revising of types, a large portion of the published data must be reanalysed before it can be used effectively for comparative purposes.

The solution of the first weakness of attribute analysis must be selectivity. Those attributes which exhibit a high degree of time and space significance would be emphasized at the expense of attributes possessing a low degree of time and space significance. In respect to the reanalyses of the published data, a certain amount of comparative data could be extrapolated directly from the typologies. For the most effective application of attribute analysis, however, a reanalysis would be necessary.

The preceding discussion is not intended to negate the relative value of type analysis. Rim sherd typology has been the tool used to trace the general chronologies of the traditions involved in the Iroquois co-tradition, and the value of this contribution cannot be underestimated. The purpose of this paper has been to point out the limitations of type analysis and the advantage of attribute analysis relative to the current problems of reconstructing Iroquois culture history. In my opinion type analysis has served its major function in Iroquois research and it is now necessary to use attribute analysis in order to demonstrate the continuity between the Middle Woodland period and the Late Woodland (Iroquois) period and to emphasize the continuities within and the relationships between the traditions of the Iroquois co-tradition.

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On the Sociology of Ceramics:

POTTERY STYLE CLUSTERING, MARITAL RESIDENCE, AND CULTURAL ADAPTIONS OF AN ALGONKIAN-IROQUOIAN BORDER

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During analysis of ceramics from the Juntunen site, a stratified Late Woodland fishing station in the Straits of Mackinac, Michigan, it became apparent that the earliest and the latest pottery differed greatly, not only stylistically, but also with respect to the ease with which taxonomic ordering could be performed. In the earliest phase, it was very difficult to recognize "types" because the many stylistic variables clustered poorly. Stated in another way, it appeared that within-group variance was about as high as among-group variance. In the latest phase, on the other hand, it was easy to recognize several clear-cut groupings that could be regarded as "types." There were marked differences among these types, and within any one type the variables showed a high degree of clustering.

The situation was striking and called for an explanation. In this paper an attempt will be made to explain the situation by inferring—from observed pottery differences and other changes between the early and late phases—possible changes in social relations and/or social structure. The assumption underlying this inference is that stylistic traits have their primary meaning in sociological, rather than technological, contexts. Stylistic elements are here regarded as

> formal qualities that are not directly explicable in terms of the nature of the raw materials, technology of production, or variability in the structure of the technological and social sub-systems of the total cultural system. These formal qualities are believed to have their primary functional context in providing a symbolically diverse yet pervasive artifactual environment promoting group solidarity and serving as a basis for group awareness and identity [Binford 1962: 220].

It is felt that style analysis can lead to greater specificity about the promotion of group solidarity. Two cultural changes will be inferred from the changes in pottery styles: first, a shift in the area with whose inhabitants the site interacted most intensely; second, a shift in social organization. The first can be fairly securely documented, but the evidence supporting the second is far from conclusive and is offered tentatively, with the idea that further work might yield more definitive results.

The Juntunen site is located on Bois Blanc Island in the Straits of Mackinac, between Lakes Michigan and Huron and between Michigan's upper and lower peninsulas. Yarnell (1964) points out that the site lies at the edge of the climatic zone with 140 frost-free days per year, a zone generally recognized as the lower seasonal limit for effective maize agriculture. The northernmost known prehistoric occurrences of maize are from Juntunen, a fact that, coupled with the many indications that the site was first and foremost a fishing station, reinforces the idea that it lay on the undoubtedly labile border separating the fisher-hunters of the north from the groups with at least some dependence on maize agriculture, a border roughly delineated in historic times by the dividing line between speakers of Algonquian and Iroquoian languages.

Excavations were conducted by the writer in 1960 and 1961 as part of a project being conducted by the Museum of Anthropology, University of Michigan, for the correlated study of post-Pleistocene cultures and ecologies, under the direction of J. B. Griffin.[1] A preliminary report on the ceramics from the site is available (McPherron 1963a), methods of analysis have been described (McPherron 1963b), and a complete report is to be published (McPherron n.d.).

A complicated stratification of the site resulted from the intercalation of thin occupation layers and wind-blown sand deposits. Of the three major cultural phases recognized (mainly on the basis of style changes in pottery), only the earliest and the latest, carbon dated at about A.D. 800 and A.D. 1300, respectively, will be considered here.

Food-animal bones and artifacts indicate that throughout the period of occupation the adaptation to the natural environment underwent very little change. Fishing was at all times the principal subsistence activity, with whitefish and sturgeon the main food resources. Botanical remains other than maize (identified by Yarnell [1964]) include various seeds and berries that, considered together with the fish (maximally available in the shallows offshore only at spawning seasons, spring and autumn respectively), indicate summer or spring-through-autumn occupation. The absence of food animals that would have been available in the cold season suggests that the site was abandoned in the dead of winter. Thus, a seasonal cycle similar to that of most Algonquian-speaking groups in the same general area in historic times can be reasonably inferred.

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The pottery of the early period of occupation (A.D. 800 to 1000) shows broad generic similarities to many other early Late Woodland wares and is closest to the "Lake Michigan ware" (McKern 1931) found in eastern Wisconsin and to the Blackduck ware that occurs in an enormous area including parts of Saskatchewan, Manitoba, Ontario, and Minnesota.

In the late period (A.D. 1200 to 1400) a shift is seen in the area in which pottery similarities are greatest. The pottery now shares traits with the Barrie-Uren ware of southern Ontario (Wintemberg 1928; Ridley 1958; Wright 1960). Thus, cultural connections are most marked with the area of developing "prehistoric Ontario Iroquois" culture. Connections with the area to the west of the Straits of Mackinac were not entirely broken, however, for a few Oneotoid vessels occur in the late period.

The analysis of pottery in the laboratory began with the conversion of sherd counts to vessel counts, accomplished by laying out all the rim sherds (around 5000 in all) and grouping together those judged to come from the same vessel. It was hoped that it would in this way be possible to avoid the sampling problems that result from the fact that while most vessels are represented in the sample by only one or two sherds, a few nearly complete though crushed vessels are present. If sherd counts were used in tabulating pottery type frequencies, the presence of the many sherds from the nearly complete vessels could unduly influence the tabulation of type frequencies.

A total of 630 vessels of the early phase are represented in the sample. The style has been named "Mackinac ware" (McPherron n.d.) but will be referred to herein as "early ware." The total of 280 late-phase vessels, named "Juntunen ware," will here be called "late ware."

Since there existed no named categories for the great bulk of the pottery, it seemed desirable to set up "types" for the purposes of description. An initial effort was made to sort the vessels by eye, using the overall "gestalt" of the vessel, but it soon became evident that while the late ware could be satisfactorily handled by that technique, the early ware definitely could not be: different partitionings of the vessels were obtained, depending on the sorter's judgment as to what were the most significant attributes or attribute clusters, and a large number of vessels were found to be intermediate between two groups and could as well be placed in one category as another. Thus there was a great amount of overlap among whatever "types" were being tried out.

While vessels of the early ware shared similar physical characteristics and had the same over-all shape, there was an extraordinarily great variety of decorative techniques, design elements, and combinations of these factors, with no apparent tendency of the vessels to cluster into types. A series of tests of significance, applied between pairs of attributes where clustering was suspected, failed to yield any significant results. For that reason such techniques for setting up (or discovering) types as those described by MacNeish (1952) and Spaulding (1953) could not be used. The variety in decoration can be seen in the accompanying table.

DECORATIVE TECHNIQUES USED ON EARLY-PHASE POTTERY

- *Cord impressing with two-strand twisted cord*
  - Simple cord
  - Doubled cord
  - Loop formed by doubling cord
- *Cord-wrapped objects*
  - Cord-wrapped stick edge
  - Cord wrapped around flexible core such as thong ("cord-wrapped cord")
  - Cord-wrapped cord itself wrapped around a stick
- *Punctations*
  - Tool used:
    - Knot or loop of cord
    - Cylindrical stick or reed
    - Rectangular or oblong-ended stick
    - Sharp or chisel-ended stick
  - Depth:
    - No boss on opposite side
    - Boss raised on opposite side
    - Punched through
  - How used:
    - Sole decorative technique
    - Part of major decorative motif
    - Superimposed over major motif
    - Below major motif

In addition to the overall variety of techniques, it was also common to find several used on a single vessel. In one case, there were impressions of a cord-wrapped stick edge on the vessel interior just below as well as across the lip; a chisel-ended tool on the exterior rim immediately below the lip; below that, bands of lines made with a cord-wrapped cord; and, finally, rectangular punctations ending the design at the bottom of the decorated area 3 inches below the lip. A subjective statement with regard to the early ware is that there are numerous "varieties" but no "types."

The contrast between early and late pottery in such respects is pronounced. Vessel bases change from subconoidal to round; lips are no longer splayed, and collars and castellations appear. Corded devices largely give way to a technique variously called "push-pull," "stab-and-drag," and "drag-and-jab." Change is also apparent in the range of variability and degree of attribute clustering. There are three easily identified types in the late phase with very little overlap and low within-type variability. The problem of classification was not whether usable types could be set up but whether clearly distinct and uniform types should be included under a single "ware" designation. The smallest rim sherd of the most frequent late type, Juntunen Drag-and-Jab, could easily be typed, a situation that was far from usual with vessels of the early ware.

Cultural differences between the early and late phases at Juntunen, however, transcend pottery styles; they include a shift from small and evidently impermanent dwellings of indeterminate size and shape to a clearly defined longhouse. Unfortunately, a number of factors make the data on settlement patterns inadequate, particularly in the earlier phases: not enough area was excavated, succeeding occupations in the soft sand blurred earlier evidence, and deflation and erosion in the central area of the site compressed layers of habitation deposits. Many post molds originating in early-phase levels indicated structures, but no distinct house outline was uncovered, nor did artifact concentrations or hearths indicate "inside" versus "outside" situations. Yet the post molds, the density of artifacts in some areas, scattered traces of fires, and degree of potsherd breakage (presumably by feet) pointed to habitations. It seems reasonable to suppose that temporary "wickiups" were being used.

Only one longhouse was encountered at the site; it was built near the middle of the last prehistoric occupation phase, or about A.D. 1300 (the site appears not to have been used after about A.D. 1400). The longhouse was 22 feet wide and at least 80 feet long; neither end was recovered. It had been rebuilt or reinforced on several occasions, as evidenced by multiple rows of post molds for sections of its length. Hearths were found within the confines of the rows of post molds, but none is unambiguously of the same age as the longhouse. No other signs of internal arrangements were recognized.

At about the same time that the longhouse was being occupied, the inhabitants of the site prepared five ossuaries, which contained a total of 56 burials interred at various stages of decomposition. The largest of them (34 burials) was of particular interest, both because it ranged from completely disarticulated bundles of bones at the bottom to fully articulated individuals at the top and because some of the latter were buried with grave goods. The pit had been lined with bark fibers, and a number of the burials had been wrapped in a similar material. In many ways, the ossuary looks like a prototype for the Huron "Feast of the Dead."

The conclusion was reached that it was during the last phase that maize became of some importance, based on the fact that 16 of the 19 recovered kernels came from late-phase levels. It was also during the last phase that a copper-working industry appeared on the site. A total of 776 pieces were found, ranging from unworked nuggets to completed awls, beads, and other forms.

The question arose whether the observed changes could be explained in terms of a meaningful sequence of events and whether these events could be explained in terms of known cultural processes. It is frequently assumed that pottery style change either is natural and expectable as a function of time or can be explained by diffusion or the movement of peoples. The Juntunen data were subjected to particular scrutiny to see whether alternative or more specific hypotheses could be advanced and supported.

If attention were restricted initially to the stylistic changes in pottery, replacement of people or change in the cultural traditions of the same people might be proposed as cause. Against the first alternative can be argued the continuity between early and late phases in a large number of traits: in vessel paste, firing, and other nondecorative aspects of pottery making; in the chipped-stone and bone-working industries; in the area chosen for habitation; and finally in the persistence of the identical subsistence pattern. The archaeological evidence thus makes ethnic continuity at the site seem most probable.

If, then, we find little evidence for migration and if subsistence activities remain constant throughout the period of occupation, it appears that an explanation might best be sought in terms of changes in social organization or relations among groups. A term commonly used in describing such changes is "influences." It should be emphasized that the real problem is to discover what these "influences" actually consist of in terms of the relations among social systems.

Studies of the relationship between social organization and variations in pottery decoration appear to have had their debut with Deetz's study of the changes in Arikara villages that were the result of depopulation through epidemics and strife with horse nomads. He concludes that

> during the eighteenth century, the Arikara underwent a change in their social organization characterized chiefly by a shift in post-nuptial residence rules away from the former matrilocal pattern. . . . While the Arikara social structure was changing in this man-

> ner, the ceramics produced by the women show a marked change in stylistic patterning, chiefly characterized by a reduction in the degree of regular association between design attributes [Deetz 1965: 86].

His hypothesis is based on the assumption that women who spend their lives together in a matrilocal household will form what might be called a "microtradition" that contrasts with similar "microtraditions" of other households in the village.

Further evidence for an association between pottery-design attribute clusters and spatial aspects of matrilocal residence is supplied by Longacre (1964 a and b). He suggested that in a prehistoric pueblo in eastern Arizona, some pottery variations were functional—different pots for different purposes—and were associated with activities performed in different kinds of rooms, while other variations were stylistic and were associated with groups of contiguous rooms in the pueblo, evidently not reflecting differences in function but reflecting the presence of distinct social units, as lineages.

The Juntunen vessels differ from early to late not only qualitatively but also in terms of the quantity of style variation—the overall amount of variation is much higher in the early phase. For an ethnological interpretation of heterogeneity and homogeneity of culture traits, a recent paper by Roger Owen (1965) is of particular interest. Owen points out that there is often great cultural diversity within patrilocal bands; he suggests that in some cases a band may be composed of "adult males as native speakers of one language, and some proportion of the females as native speakers of different languages or at least dialects" (1965:678). Such diversity, he finds, is caused largely by the fact that "in situations of extremely low population density, extreme exogamic regulations will inevitably lead to selection of mates from some distance, often 50 miles or more" (1965:683), resulting in diffusion of "female culture" and relative stability of "male culture." Parallel to this account, it may be noted that diffusion of female culture (randomness of clustering of pottery decorative elements), in contrast to its nondiffusion or concentration in matrilocal households, is basically what Deetz posits for the Arikara after the breakup of the matrilocal-matrilineal residence and descent pattern.

Now the Juntunen site is located in an area in which—as inferred from the historic and ethnographic data—virilocal residence[2] and low population density among fisher-hunters would normally be expected. Although Steward (1955) thought that pre-fur-trade Algonkians had composite bands, Eggan's conclusions (1955:532) suggest that such was not the case; he agrees with Hallowell that "from a *sociological* standpoint the systems are equivalent to a 'bifurcate merging' pattern" and that cross-cousin marriage was practiced, both of which are characteristic of bands called "patrilineal" by Steward (1955) and "patrilocal" by Service (1962) and Owen (1965). The antiquity of cross-cousin marriage and virilocality among Algonkians is strongly supported by the studies of Hockett (1964) and Callender (1962) of the reconstructed common parent of the Central Algonquian language group, which Hockett thinks was spoken about 1500 years ago. It therefore seems reasonable to conclude, as does Service (1962), that patrilocal bands are normally expectable among Algonkians and should likewise have existed among the prehistoric occupants of the same area.

Following Owen's (1965) model for patrilocal bands, it would be expected, with low population densities, that wives were being obtained from groups some distance away. Given band exogamy, "the probability of selecting a partner from a neighboring band, after long periods of geographic contiguity, [would be] slight" (Owen 1965: 677).

Handmade pottery is generally considered the example par excellence of "female culture" in the archaeological record, and when a number of women from different bands are together for a period of time—even in situations of fluctuating band composition—one could expect considerable "diffusion" of traits, including fashions in pottery decoration. If this diffusion was prevalent in the Juntunen early phase (and bearing in mind in addition the crossroads location of the site), then the great variety of decorative modes and random clustering of traits in the early pottery would be just what one might expect: the result of the mixing of a number of local potting traditions by wives who were coming from a number of dispersed local groups.

Judging from the fact that early-phase Juntunen artifacts—particularly pottery, arrowheads, and scrapers—are most like those from other sites along the upper Lake Michigan shore, especially on the Door Peninsula of Wisconsin we can infer that the most intense interaction—including marital arrangements—of groups in the Straits of Mackinac was with an area to the west of the Straits. The Heins Creek pottery of the Door Peninsula, roughly contemporary with the early pottery at Juntunen, impressed Mason (1966.) with it high variability, and it may well be that the weak clustering of traits found in many wares of this period accounts for the fact that no serious attempt has been made to organize and classify much of the pottery, such as "Lake Michigan ware" of Wisconsin,

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[2] Following Service's (1962:30) distinction between "virilocal" as a *rule* of residence (married couple live with husband's group) and "patrilocal" as referring to *groups* in which virilocal residence is practiced.

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and that there is disagreement as to the classification of Blackduck pottery.

It is clearly not a strongly supported hypothesis that the variability can be accounted for in terms of virilocal residence, the introduction of minor variants by new wives, and the subsequent diffusion of the techniques and designs among the women who habitually get together. Considerable further work is required to substantiate such a hypothesis, and, furthermore, some objections can be raised to it as it stands.

Thomas Harding has pointed out to me that if pottery is regularly exchanged among families—either in the form of incipient specialization on the part of some individuals, or as gift-giving, or as a generalized sharing of items that happen to be plentiful in one household but are scarce in others—then a wide variety of vessel types on a site could result from other causes than those hypothesized here; the variability might have nothing to do with marital residence. Harding observed such an effect resulting from the exchange of pottery within and among certain villages in New Guinea. However, the differences in settlement and community patterns must be considered; he was dealing with villages, not bands. Among Algonkians it seems that the low population density as well as the impermanence of settlements would render intergroup exchange of pottery—if in fact it took place at all—of small importance. Within encampments, on the other hand, much gift-giving, sharing, etc., may well have taken place.

Another and more serious objection arises from the observation with regard to many band societies that local group composition often varies greatly from year to year. Families may go to the nearest available fishing locality rather than to a specific one to which they have "rights," and therefore it is unnecessary to invoke virilocal residence to explain the presence on a site of women of diverse local backgrounds—they could simply be coming in for the summer with their husbands, who are of equally diverse local backgrounds. It is difficult to tell whether such instability in group composition would be sufficiently high to mask any further diversity caused by the rule of exogamy. Owen's data do indicate that the diversity in the groups he describes is in fact largely in terms of "female culture." It appears that one might well approach the problem from the archaeological side by comparing the variability in items of "male" and "female" culture. To my knowledge no attempt at such a comparison has been made. From my own observations of the Juntunen data, arrowheads appear to be more uniform than pots, but it is hard to compare a chipped stone tool, with its inherent limits as to possibilities for variation, with an artifact modeled out of damp clay, in which room for variation is almost infinite.

The situation in the late phase may lend support to the hypothesis that relates pottery style homogeneity versus heterogeneity to marital residence. The late pottery shows that most interaction had shifted to areas east of the Straits of Mackinac. The ossuary burials look like prototypes for the Huron "Feasts of the Dead." The copper-working industry suggests that attention was being paid to production of an item to be used in trade. Maize itself may have been a trade item, although it is also perfectly possible that it was grown around the site. Finally, while one hesitates to attach too much importance to it, the longhouse, together with the other bits of evidence, does suggest acculturation to the developing prehistoric Huron-Iroquois culture.

If these suppositions bear any weight, then the homogeneity of late-phase pottery may indicate the opposite of the condition suggested for the early phase: namely, that the style-homogeneity reflects a changed marital residence pattern, in which the women who make the pots are now growing up together and having continued close association after marriage. In other words, groups occupying the site had shifted from patrilocality to matrilocality.

It is hardly to be expected that such a shift—if in fact it occurred at all—was widespread among Algonkians. It probably would have involved only a few hunter-fisher groups, specifically those in direct contact with matrilocal Iroquoian-speakers, those who would have had something to gain by a change in rue of residence.

Trade across the ecologic and ethnic border separating hunter-fishers from the more settled horticulturists is certainly to be expected for all periods, and, as the respective areas developed their exploitive specializations, such activities can be expected to have increased. The trade documented for early historic times is no doubt only an expanded and more elaborate version of what had been going on for a very long time, as has been suggested by Hickerson (1960) and Trigger (1963).

Numerous references to trade relations between Algonkians and Hurons are made in the Jesuit Relations. As cited in Tooker (1964), they include wintering of groups with the Huron. On one occasion, there were such large numbers that when they departed in the spring they took back 70 bodies of those who had died during the winter (Tooker 1964:19). One wonders if the bodies were destined for ossuary burial. During such winterings, the Algonkians camped outside Huron villages and exchanged fish, animal skins, copper, winter clothing, camping equipment, and magico-religious items for Huron corn, tobacco, fishing nets, and wampum (Trigger 1963:92; Tooker 1964:25). Trigger, in fact, concludes that the historic location of the Huron can be explained largely in terms of trade relationships and that trading and the rise of confederacies are causally related.

In southern Ontario the Barrie-Uren and Middleport phases, which correspond roughly in time with the latest phase at the Juntunen site, show increasing reliance on horticulture and a rising population density. In some areas, notably the Humber Valley (Wright 1960:3), warfare and the building of fortified villages on defensible hilltops begin at this time. Similar developments in New York State begin during the Middle Owasco phase, about A.D. 1160 (Ritchie 1965).

It seems reasonable to suppose that the changes seen at the Juntunen site in the late phase represent an adaptive response on the part of peripheral Algonkians to the changes taking place in cultures in Ontario. If trade across the ecological border was increasing during this period, with the prehistoric equivalent of Hurons going on fishing trips into the north and Algonkians wintering in Huronia, then the heightened interaction can be expected to have led to mutual acculturation among groups living along the zone of transition. Such relationships as were developing would then have been facilitated and strengthened by marital ties. If, on the basis of artifact continuities at Juntunen, we exclude the possibility that the longhouse represents a fishing trip by inhabitants of southern Ontario, and if we can assume that groups living in Huronia by this time already possessed matrilineal clans and matrilocal extended families, then intermarriage between them and peripheral Algonkians should have resulted in a breakdown of the prevailing mode of marital residence and the spread of the mode preferred by the dominant group. At the border separating the zone of hunting-fishing from the zone of sedentary horticulture, some men would have joined peripheral Huron villages at marriage and, while the process probably operated in both directions, so that women sometimes did the moving, it seems unlikely that many Huron women—the horticulturists—would have joined communities of hunter-fishers. The readjustment needed would have been greater for women than for men, in terms of both work habits and familiarity with surroundings—Huron men, not women, left their villages to hunt, fish, and trade. It may further be supposed that the persons changing residence at marriage would have been those most actively engaged in trading activities, since by such marriages their ties with the communities with which they customarily traded would have been strengthened.

In summary, it can be assumed that virilocality was—at least most of the time and in most places—the normal marital residence pattern among Algonkians in the pre-fur-trade period. Given band exogamy, whose presence is supported by the ethnographic and linguistic evidence for cross-cousin marriage, and with groups widely dispersed, wives were often obtained from considerable distances. The situation as described is thought to be reflected in the high variability of the early Late Woodland ceramics in the Straits of Mackinac. As southern Ontario and New York State cultures developed in the direction of the subsistence pattern and social organization found in the region in early historic times, groups of hunter-fishers in the Straits of Mackinac were drawn into the Ontario orbit and, while continuing the same subsistence activities (with the possible addition of some maize cultivation), began to exchange specialized products of their areas. Such trade was already well established by the time Europeans arrived on the Atlantic coast, so the fur trade did not involve new trading arrangements but merely a concentration on handling certain items, notably beaver pelts.

The argument presented in this paper obviously bears more resemblance to the activities of a tightrope walker than it does to the processes of scientific demonstration—the string of assumptions, suppositions, and weakly-supported inferences is almost unbearably long and thin. Plausible alternatives can be offered for most of the points. The discussion is offered, not as the definitive answer to anything, but to present certain possibilities for the study of stylistic variation.

The analysis of Juntunen ceramics began with an attempt to set up descriptive "types" and ended with a realization that variability is a poorly-understood concept. Although inspection indicated weaker attribute clustering and more variability in the earlier phase than in the latter, present analytical techniques known to the writer (including computer programs) do not permit the *demonstration* of differences in quantity of variation. Something like a multivariate analysis of variance extended to qualitative data is required. There is much work to be done; this paper can only be a foretaste of what future analysis may some day be able to demonstrate.

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Ethnological Needs for Archaeological Reconstruction:
A LATE WOODLAND EXAMPLE

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Despite an occasional detour in the pursuit of methodological refinement and specialization, ethnography and archaeology have worked together to write the unlettered chapters in the history of man. In the first flush of prehistory's emergence from the debris of the caves of Perigord a century ago, it was in the scant body of ethnographic data that the prehistorian—still almost exclusively a geologist—sought the meaning of the stone and bone implements which testified to the existence of a human type whose vast antiquity had so long remained unrecognized and unbelieved.[1] The use of ethnography to interpret the archaeological data—irrespective of the particular historical assumptions which provide its rationale—still fits the major archaeological problem; i.e., the reconstruction of a culture from the bits and pieces left by the process of its growth and disintegration. The very nature of these scattered remnants of a human occupation demand for their proper interpretation hypotheses suggested by ethnographically validated analogs.

Similarly, the archaeological record is useful in the solution of major ethnological problems of historical process and the origins of particular localized cultures. For non-literate cultures, history is directly manifested only through the reconstruction of an archaeological record, only through the relating of the ethnographic present to an archaeological past.[2] It is with this necessary and inevitable symbiosis between archaeology and ethnography in mind that I describe here three features from an archaeological site and present them, as archaeological data, for ethnographic interpretation. To the extent that they touch a responsive ethnographic chord they will take on meaning as documents for a human record.

The site itself is the Mohr Site, a Late Woodland village in the Lower Susquehanna Valley. This site has been under excavation for parts of three summers. The most extensive work was done during a 10-week season in the summer of 1965.[3] Except for three scattered items on the surface or in the disturbed top soil, no contact material was found. The prehistoric character of the occupation of this site suggested by the lack of European trade goods is supported by the cultural material. It is homogeneous in nature and of a sort that is easily classified as Shenk's Ferry, generally regarded as being pre-contact in the Susquehanna Valley.[4] The site itself is that of a settlement, probably a village, covering about 3½ acres encircled by a single palisade or fence. Both its temporal and geographical location as well as the nature of the cultural material [5] typical of the site place the settlement within a general area of Iroquoian cultural influence if, in fact, they do not demand some closer affinity. This relationship suggests the possibility that reference to known institutions and practices of the Iroquois may aid in the interpretation of certain of the archaeological features and, conversely, that certain of those features may contribute to the solution of the knotty problem of Iroquoian origins.

One of the most interesting features is a possible burial complex with a patterned character which distinguishes it

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[1] See particularly Anderson (1875) and Brown (1875). The amazing volume (Lartet and Christy 1875), of which these are two parts, contains the reports emanating from Les Eyzies from 1865 to 1875, which not only described the material from the caves but also attempted to interpret it in cultural terms. John Evans (1872), among others, also made use of such ethnographic comparisons in his classic description of prehistoric lithic types. For an account of the emergence of the concept of prehistoric, see Glyn Daniel (1964) and J. W. Gruber (1965).

[2] Of course, such reconstructions are possible through such respectable anthropological methods as comparative linguistics and the analysis of traditions; but each of these methods requires the extension into the past of a present cultural practice and thus reveals history "indirectly." As relics of a previous cultural condition which are not a part of the existing culture, the archaeological remains reveal "directly" a past condition. With the development of writing, the contemporary record becomes the most extensive direct manifestation of the past.

[3] I acknowledge here with gratitude a grant from the National Science Foundation, No. GS-853, which made possible the extended season of 1965 and much of the subsequent preparation of the materials. Much of the excavation was accomplished by students as part of the summer field session in archaeology of the Department of Anthropology at Temple University. Grants-in-aid from the Faculty Research Committee of Temple University have also aided in the preparation of the field materials for analysis.

[4] The term itself derives from the pioneer work of Donald Cadzow (1936) 35 years ago. For recent descriptive and classificatory work on the Shenk's Ferry problem, see Witthoft and Farver (1953), Heisey and Witmer (1964).

[5] Laboratory analysis has not yet proceeded far enough for particular data to be detailed here.

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from the apparently scattered burials reported from other sites with similar cultural material. To date, 55 burials, 40 ot them adult, have been excavated and removed. The pit outlines exposed on the sub-soil surface are generally clear; and in only a single instance, the relatively deep Burial 33, is there any suggestion of "midden burial" said to be observed on other Shenk's Ferry sites.[6] Burial modes varied: burials were shallow and deep, extended, semi-flexed and tightly flexed, with and without grave goods, on the back and on the side, hands in varying positions. While some of these features may reflect, on further analysis, some kind of stylistic preference or correlation with age, sex, or location, none is so far observable.

There is, however, one constant feature in the burials found so far. This is the body orientation. Except for two burials—and these adjoin each other just inside the palisade in the southeast quadrant—all of the adult burials are so laid that the head lies to the east. Their axes are not, however, parallel; they are angled north and south of east within an arc whose limits suggest that the orienting factor was the position of the sun at sunrise. In other words, the corpse, whether flexed or extended, was buried so that his skull (or the axis of the vertebral column) pointed to the rising sun.[7] If the assumption of such a directing factor is valid, these burials reflect a particular belief system which infused the burial practice at this site. Although the excavation of additional sites where such a pattern may reoccur[8] can add support to the hypothesis that some such religious belief did in fact direct the axial arrangement of the dead—and that possibly this practice was associated with the position of the rising sun, archaeology can go no further. To flesh out the practice and to place the archaeological evidence in its proper context are the tasks of ethnology. The ethnographically known cultures from which such data are most apt to come are those of the Iroquoians; and it is to these that we must look for the additional data necessary to reconstruct this complex. To what extent such data are actually available I do not know. At best, details regarding mortuary practice in general are sparsely scattered through the ethnographic and ethnohistoric literature.

While some attention has been directed to the total ceremonial surrounding the care and treatment of the dead—more in a spiritual than a corporeal form—both by observers such as the 17th century Jesuits and later students of the Iroquoians as Hickerson (1960) and Fenton and Kurath (1951), the actual factors dictating particular modes of interment are generally ignored or unknown, perhaps because their influence was so basic or the practice so obvious as to require neither explanatory comment nor question.[9] In any case, the existence of what must certainly be recognized as a *pattern* of interment at the Mohr Site—and possibly at other culturally-related sites—suggests that there may be data concerning it in the varied ethnographic and ethnohistoric sources.

For purposes of interpretation and translation into ritual practice it is necessary to know (a) whether head or feet point the direction and (b) the normative direction itself. These two points are, of course, reciprocally related so that if one were known, the other could be deduced.

The Algonkuians[10] are said to have buried

> their dead in such a way that the head of the departed one faces the West, in order that the soul may know the place whither it is to go. They believe, as

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[6] Even in this case, the pit profile indicates that the ashy midden which forms the upper zone of the fill was used to level off the shallow depression caused by the slumping as the fill became compacted in this deep pit.

[7] The particular data regarding axial direction and the character of the burials themselves as well as the implications that can be drawn from them for seasonal differences of burial are being analyzed for later presentation.

[8] Heisey and Witmer (1964) have encountered what appears to be an identical phenomenon at the Shenk's Ferry Blue Rock Site. However; specific directional data do not appear in their report nor is it possible to distinguish there the Shenk's Ferry burials from those of the historic Susquehannock component. I feel certain, however, that the east-west burials there are a manifestation of the same religious beliefs as those which existed at the Mohr Site. It is interesting to note too that there is also a close similarity between the artifacts identifiable as Shenk's Ferry from both sites.

[9] Thus in her attempt to use a trait comparison of mortuary customs as a means of unravelling the problem of Shawnee origins, Erminie Voegelin (1944) does not include body orientation as one of her identifying traits, probably because so little information was available as to make comparisons meaningless. She refers to it only once in order to note that the general practice of the Shawnee was to orient the burials to the west; and she contrasts this apparent pattern with the archaeologically-documented practice at the large prehistoric site at Madisonville, Ohio, where the prevailing orientation of the more than 1200 burials was south, east, and southeast or northwest, with none to the west.

[10] When Cadzow (1936) first distinguished the Shenk's Ferry component from that of the Susquehannocks, he ascribed the former to the Algonkian stock and the latter to the Iroquoian. It is hardly likely that such an Algonkian affiliation would be considered valid today, although the exact affiliations of the communities characterized by Shenk's Ferry materials are still a matter of considerable doubt and argument. The physical proximity of the Algonkians, however, does provide this example with some of its worth, although the major purpose of introducing it here is to indicate that there is some ethnographic information to indicate that both direction of the body at burial and the use of the head as the reference point for orientation were matters of cultural concern in the area.

> I have said, that it goes to the place where the Sun sets,—this being the country of souls, according to them. (JR 16:207)

The inference here is clearly one which indicates that the land of the dead was in the west. Speck (1942), however, has noted the importance of the east, the place of the rising sun, in the Spirit Adoption Ceremony of the Tutelo,[11] a ceremony which was clearly part of a general and extensive mortuary ritual. The chanting stops just before the first appearance of dawn in preparation for the final act of the ceremony during which the Adopted Person, i.e., the one who for this brief moment took the place of the deceased, and the Mourners were led "out through the east door to meet the first rays of the rising sun, upon which the spirit of the departed would travel towards the sun to the realm of souls beyond." (Speck 1942:70)

At best, these are scanty sources upon which to depend; they suggest, however, that other useful data might be found in the literature which would clarify this particular detail.

Although it seems to me that the most striking characteristic of the burials at this site is this prevailing east-west orientation, it may be of some interest to note here, but without further comment, two other features which may prove to have some ethnological value: (1) some, at least, of the burials seem to be systematically arranged in an area whose location and general dearth of settlement features suggest that it was a central village plaza (see below);[12] and (2) for each burial, at least in this sector, there appears to be an associated midden pit. These pits are relatively small and shallow—they are certainly not "rubbish" pits in the generally-accepted sense nor are they hearths. They do contain, however, cultural and organic refuse which may provide the archaeological evidence for a post-interment ceremony or feast as part of the total burial ritual.

A second feature at the Mohr Site requiring ethnographic clarification is a post mold pattern which describes a circular structure at the edge of and to the northeast of the "plaza area" suggested above. No structural features have been described from Shenk's Ferry sites. The structure excavated at the Mohr Site is just under 30 feet in diameter, completely circular. Almost certainly there is an opening to the west (facing the "plaza") and a possible second opening diametrically opposite, to the east. A cluster of posts was set just off center to the west. These consist of two, large, round-bottomed posts (about 8″ in diameter), each with at least one, and possibly two, smaller pointed posts (as support posts) associated with it. These posts functioned, presumably, to support a roof structure, since the size of the building appears to have been too large for the roof to have been formed by the bending over of the saplings which formed the skeleton of the side walls. There is, further, a line of post molds, forming a chord of the southeast arc which served either as a partition wall or, more probably, as the support for a platform of some kind. The peculiar feature of this structure—and that which makes a definition of its use difficult—is the apparent lack of an internal hearth, whereas the ethnographic data available insist that house-structures contained hearths. In this case, there are two shallow middens, containing scattered cultural materials, associated with the structure: one just outside the putative west opening; and the other *at* the east opening.

What can be made of a structure of this sort? Both its size and the lack of an internal hearth argue against its use as a habitation structure. Can it be a ceremonial structure of sorts? Witthoft (1961:70) describes a community type for the Southeast which may suggest its function.

> Villages were made up of small houses occupied by households not much larger than the nuclear family. Whether fortified or not, houses were closely packed around a central plaza or square. This plaza served as a temple area for community ritual, and may sometimes have been an actual building rather than a mere floor. Near this square, in a central area, was the men's house which was both a home and a ritual building. It was occupied by men of the community who were not resident in their mothers' houses or in the homes of their spouses . . . this special building was the nucleus of men's activities, and it served as the temple for their ritual, war rites, ball play ceremony, and the formal training of youth. Men's houses are best represented by the earth lodge or hot house of the Creeks and Cherokee.[13]

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[11] The Tutelo reference has some significance in this instance, since the speakers of this Siouan language are known to have been occupants of the Southeast in prehistoric times and to have moved northwards through the Susquehanna Valley until their eventual union with the New York Iroquois. The historic sources, however, place them in the Lower Susquehanna Valley too late to have direct relationship to the settlement of the site under consideration. It is possible, although still highly speculative, that the historic accounts of the wanderings northwards of the Tutelo may represent a "telescoping" of a much longer period of prehistoric occupation or cyclical settlement of the same peoples in the area. For the Tutelo problem, see Horatio Hale (1883), Sturtevant (1958), Schaeffer (1942). For a contrary view of the linguistic affiliations of the Tutelo, see Miller (1957).

[12] Confirmation of the existence of this plaza and the presence of burials associated with it must await the completion of excavations in the area.

[13] Witthoft (1961: 70) recognizes that "the ancient community [is] seen dimly through archaeology and history."

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In Bushnell's descriptions of aboriginal villages in eastern north America (Bushnell 1919), based upon early historic sources, there also occurs a special kind of ceremonial structure at the edge of a central plaza.

Third and finally, there is the important question of community relationships and the degree of cultural interdependence between geographically juxtaposed settlements. The Mohr Site is not an exceptional site in the lower Susquehanna Valley. The available information strongly suggests that the area contains a relatively large number of sites of this sort. Furthermore, the data available indicate that although these sites tend to fit into an overall cultural pattern, each possesses a distinct character which can be seen at least in the modification of a basic ceramic style that each group selected. Although it is possible that some of these stylistic differences are a function of stylistic changes through time, the association of distinct styles at the Mohr Site in contexts which do not permit the suggestion of temporal difference demand the hypothesis of local styles. Although the ceramic materials from the Mohr Site have been subjected so far only to a preliminary and superficial analysis, it has been possible to detect a style which is characteristic of the site. This is a variant of the Lancaster Incised type which Witthoft and Farver (1953) have described. It consists of a relatively narrow collar decorated with an incised frieze of horizontal and diagonal lines. Its most characteristic feature, however, is a smoothed neck, specifically marked off from a corded body and from the collar, usually by a series of diagonal gashes made by the edge of the cord-wrapped paddle which was used both to malleate and to mark the body. This type does not occur with any frequency at the sites described by Witthoft and Farver (1953) nor at the Blue Rock site described by Heisey and Witmer (1964). Its high frequency—it represents at least 80 percent of all of the incised-collared ware—at —the Mohr Site marks it as characteristic of that site; and, in contrast to other examples which are obviously exotic on this site, this particular ware was in all probability manufactured here.[14] Yet there does occur in the midden deposits ceramic materials which must have been introduced from outside this community with its particular stylistic canons.

In population and socio-economic terms, these communities (of which the Mohr Site is one example) must have been relatively self-sufficient and independent of each other. It seems to me that the stylistic differences from one community to the next argue for such a condition of relative cultural autonomy. If these communities did exist contemporaneously, there would likely have been some communication between communities, a kind of interaction through which the foreign elements, certainly observed in the ceramic material, could be introduced. The exotic materials at the Mohr Site argue for this kind of interaction between communities on a prehistoric time level; ethnographic parallels, however, are required to flesh out the process, and to construct the theoretical frame within which the particular archaeological materials from this culture region can be specifically interpreted.

To what extent does such interaction actually take place between communities which are relatively self-sufficient economically and whose territorial lines are well marked? Is there a relatively constant relation between distance and degree of interaction and cultural exchange which would make it possible to suggest the location of the source of the exotic materials at any particular site? What is the mode of transmission of foreign elements from one community to another? These are questions of cultural dynamics whose answers archaeology can support but not provide; the answers themselves must be suggested by ethnology. In the context of the Lower Susquehanna Valley, such answers are vital, if we are to begin to reconstruct the overall pattern of settlement which characterized the area; for as anthropologists, we can know that the context of settlement pattern is an areal or regional one.

In this paper I have tried to suggest, in three areas, where ethnographic data and ethnologic interpretation are vital for the solution of particular archaeological problems. Without those sources of information the archaeological data would be raw indeed, a simple collection of materials, far removed from the life-ways of the people who provided them.

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Anthropology in the Social Studies Curriculum:

PROSPECTS AND PROBLEMS

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In the general revision now going on in the secondary school curriculum, anthropology is assuming a new and significant role. In past periods of curriculum revision, anthropologists took little leadership or interest and anthropology received scant attention, although educators from Montessori to Dewey were influenced by anthropological thought.

The new wave of curriculum revision started with mathematics and science. Spurred by the shock of Sputnik and supported by public opinion, scholars in these disciplines became actively involved in secondary education and funds for the support of working out new curricula came from the government and various foundations. Efforts at revision spread to the social sciences, to history, and to the humanities. Perhaps the origin of the current efforts in mathematics and the natural sciences has helped to give the social sciences their present importance in social studies revision. Perhaps also, the minor attention given recently to this matter by historians, in contrast to the time when men of the stature of Charles Beard led the fight for change in the social studies, has left the field open to the newer disciplines. Today there is both leadership from anthropologists and deep interest among educators in the contributions which anthropology may make to secondary education.

There are a number of reasons other than those cited above for anthropology's new position in social studies curriculum development. These have to do both with the content and approach of anthropology and its potential contributions to pedagogy.

(1) The fact that anthropology deals with many institutions with which students already have deep and continuous experience, such as the family, means that this experience itself may be used to help the student acquire some perspective on it. This is sound pedagogy.

(2) The organizing concept of culture with its ramifications and interrelationships helps to provide a flexible structure around which a large body of information may be organized intelligibly, helping to give students a framework with which to look at new situations. So much of the "knowledge" served up to the student today is so discrete and fragmentary that he is hard put to make sense out of it. The current, almost frenetic, search for "structure" in the social studies, prompted on the one hand by the emphasis on "structure" in the work of Jerome Bruner and his associates in mathematics and science, and on the other by the pressures to jam more and more into the social studies curriculum, has resulted in some efforts at the solution of this problem which seem self-defeating. Among these are endless lists of "concepts," "generalizations," and "understandings," which embalm living experiences and smother the evolutionary nature of the social sciences and history. Anthropology, which provides a framework for gathering and interpreting social data and processes for doing so, can help to counteract this ominous trend.

(3) One of the most persistent themes in curriculum revision in the past as in the present is the search for integration and wholeness. There have been many none-too-successful attempts to deal with this problem, including the "core" curriculum. Today, the holistic viewpoint of anthropology is welcomed because it does provide a way by which the inter-relationships of different aspects of culture and society may be discovered and the whole, as well as the parts, perceived. In addition, the emphasis in anthropology on man as a part of nature as well as man in society may provide the links between biology and the social studies in secondary education.

(4) Another emphasis in social studies curriculum revision today is on "depth studies." This is, in part, a response to the vast amount of material to be covered with the result that treatment is superficial. Anthropologists are old hands at depth studies. The comparative study of cultures is a legitimate kind of depth study from which the student learns more than facts about a particular culture.

(5) The growing interest in the non-Western world is another area in which the help of anthropologists is sought. This movement is quite recent. It parallels the developments in colleges, universities, and special area institutes and reflects American involvement in areas hitherto considered peripheral.

(6) The social studies curriculum today, at least in the secondary schools, is largely history-oriented, with a lesser emphasis on geography. History in practice has meant largely political history—"past political science"—with some emphasis also on biographical, administrative, and diplomatic history, and with minor but increasing attention to social history. One of the reasons why

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educators are interested in anthropology is that it offers a new perspective on history. It offers new viewpoints on those areas of the past which are already part of the curriculum, but which have been treated principally either politically or biographically. Thus, it may be integrated into the present courses of study without the wholesale scrapping of the entire curriculum.

(7) Perhaps the most basic reason for the current interest in anthropology is the fact that students have to learn to deal with change, both change in their own lives and change in the world around them. Anthropology seems to many educators to offer a viable approach to change as it combines both an emphasis on the processes of change and a reasonably firm structure.

These are some of the reasons for the new importance of anthropology in social studies curriculum revision. The fact that anthropologists were among the first to recognize and act on the need for change is exemplified by the Anthropology Curriculum Study Project (ACSP), one of the earliest and most fruitful of the new social studies projects. Sponsored by the American Anthropological Association with a National Science Foundation grant, the ACSP, under the direction of Malcolm Collier, has attempted to identify those topics in the curriculum to which anthropology could make a significant contribution and to prepare appropriate units and materials for the study of these topics. Thus, in an already over-crowded curriculum, the objective of the Project is not to prepare separate or advanced courses in anthropology, but to integrate anthropological knowledge into those areas which are already part of the curriculum and which will reach the largest number of students.

The units and materials prepared by the ACSP try to emphasize processes rather than facts, view knowledge dynamically rather than statically, and involve students and teachers in thinking, questioning, and acting. The materials are designed so that, hopefully, both teachers and students learn. From the beginning, the Project has had a deep interest in teacher training and in pedagogy.

Some of the materials being developed by the ACSP give an indication of its range:

The Study of Early Man—designed to serve as the opening unit in a world history course, stressing man's biocultural evolution.

The Great Transformation: The Scientific Study of the Transition from Hunting Societies to Urban Societies—dealing with the six major areas in which early civilization emerged.

Studying Society—discussing and using such concepts as "pattern" and "function."

Language and Culture—including the transition from animal to human communication, writing and its implications for human history, and patterns in behavior and language.

Area Studies—including Africa, Latin America, and the Middle East.

The first two are in experimental use now in a number of schools while the next three are in preparation. In addition, four completed ACSP projects will be published by Macmillan during the coming year. These are:

A Bibliography of Anthropological Materials for High School Use by James Gallagher.

Kiowa Profile and *Kiowa Years* by Alice Marriott

The Great Tree and the Longhouse: The Culture of the Iroquois by Hazel W. Hertzberg.

The Idea of Liberty in American Culture by Robert Hanvey.

Of special interest to the Iroquois Conference is, perhaps, the experimental curriculum in New York State History, work which was supported, in part, by the ACSP. The Iroquois project itself is an interesting example of how curriculum change comes about. Only a summary of its development can be given here: I started work on it experimentally in my own classroom and subsequently wrote the teacher's manuals for use in the course; the Iroquois project became one of the first to which the ACSP gave support; the cooperation of a number of agencies, including the New York State Museum, the New York State Historical Association, and the State University at Oneonta, was secured; the Bureaus of Secondary Curriculum Development, of Social Studies Education, and of Teacher Education of the New York State Department of Education have supported the work in various ways, as by the publication of teacher's manuals and the sponsorship of institutes for teacher training. As far as I know, this is the first instance in the current social studies curriculum revisions in which the new approaches and materials have been incorporated in a statewide curriculum.

The Iroquois unit is part of a projected three-culture sequence in the study of State history, conceived as an introduction to the methodologies of the social studies and history. The cultures are:

The Pre-Columbia Iroquois, focusing on archaeology and anthropology.

The Age of Homespun (the rural culture of the State from about 1800 to 1860), using and building on the previous unit and adding history via a depth study of the local community using primary sources.

The Age of the City, consisting of two units: (1) The Emerging City (the period from 1890 to 1914) built around the process of urbanization as it affected and was affected by three immigrant groups—rural and small-town

American whites, rural and small-town American Negroes, and European immigrants—with emphasis on sociology and (2) The Contemporary City and its relationship to the urban region, introducing urban geography.

An attempt is made to view each of these three cultures in comparative perspective and to use the insights, skills, knowledge, and methodologies acquired in each cumulatively. The course of study should help to provide a basis for subsequent study of American history, world history, area studies, and problems of democracy.

The Iroquois unit, *Teaching a Pre-Columbian Culture: The Iroquois* will be published this year by the Bureau of Secondary Curriculum Development. The categories into which the unit is divided are those which seemed most reasonable in teaching seventh grade students: myth, patterns of time (including the ceremonial and work year), patterns of space (including forest and clearing), the family, the life cycle, language and symbolic systems, and the roles of men and women. The Confederacy of the Five Nations is studied at the end of the unit after the students are familiar with themes and cultural institutions on which the Confederacy was built. Although the major emphasis is on Iroquois culture in the period before white contact, the changing relationship of the Iroquois to whites in the Age of Homespun and the Age of the City is also considered. The manual consists largely of questions (not answers) and includes an annotated bibliography. Throughout students are asked to behave as archaeologists and anthropologists. One of the exercises suggested is an anthropological study of the social structure of the school cafeteria. Thus, students gain experience in how the data they study is gathered and analysed.

Material which will accompany the study includes the book mentioned above (which benefited from helpful comment and advice by William N. Fenton and Anthony F. C. Wallace), a tape on the Seneca language by Wallace Chafe (sponsored by the ACSP), and boxes of artifacts, including replicas of masks, which schools may receive on loan from the State Museum.

The introduction of this curriculum into New York State schools is to take place over a period of several years. Last summer, a 3 week seminar on the Age of Homespun for teachers was held at Cooperstown and those who participated are presently conducting a series of regional training centers around the State. Next summer the seminar will be expanded to include both the Iroquois study and the Age of Homespun. In future summers, it is hoped that teacher training in the units on the city may also be included. Such a training program must be an integral part of any major curriculum change, as it has been in mathematics and science.

The most difficult problem in developing an Iroquois unit for seventh grade students was to find the categories for analysis which were at the same time really understandable to students of this age and true to a scholarly approach to the subject. The next most difficult aspect was to build in a kind of playfulness and delight in discovery which can, or should be, a characteristic of intellectual enterprise. The task of developing materials was relatively easy in comparison since there is such a large amount of scholarly work to draw on.

As can be seen from the list of Projects given above, the ACPS has concentrated on those fields in which anthropology has specialized in the past. This is all to the good and there is enough work to be done in these areas to keep everyone busy for some time to come. But, it seems to me that one of the major areas of the social studies is being neglected—American history. Students now encounter American history in at least three, and sometimes four places in the curriculum where it is firmly entrenched: in the biographical approach in the elementary grades, in the political approach in the eighth grade and usually also in the eleventh grade, and possibly in a problems approach in Problems of Democracy in grade twelve. Needless to say, there is enormous waste and repetition in this process. I would hope that in the eighth grade, American history might be taught with a stronger cultural emphasis, which would illuminate and support a political-intellectual approach in grade eleven. The possibilities for such a study are fascinating. For example, the Massachusetts Bay colony would make a wonderful cultural study, as would a frontier community of the West, or the plantation society of the Southeast. But such material is notable by its absence. Such basic institutions as the American family have received little attention by teachers and by writers of history. We know almost nothing about the life cycle as it has changed throughout American history. Periods as recent as the Progressive era or even the 1930's are remote, since students did not experience them and most of the scholarship has been so largely politically-oriented. Students today learn a great deal about past treaties, tariffs, and presidents and precious little about everyday life. And I see little evidence that scholars in either American history or in anthropology are as yet turning serious attention to such matters which at present fall through the interstices among the disciplines. The scholarly studies which are traditionally the source for secondary education are simply non-existent in this area. The result is neglect of critical areas or unsystematic and often silly chapters in secondary school textbooks on such topics as "Life in the Colonies" which make a bow in the direction of cultural studies before getting down to business.

An exception to this is, of course, American Indian studies. In American history courses, the Indian is usually neglected, or appears occasionally in the person of Pontiac or Tecumseh. He may be presented as villain or as victim, but very little basic cultural understanding is thereby developed. In the elementary schools, the mayhem visited on the Indian can only make an anthropologist shudder, as the various tribes are melted in an unsavory stew of tepees, longhouses, war bonnets, scalps, and Little Running Water, our Indian playmate. In fact, a major obstacle to a serious consideration of the culture of the Iroquois was the mess made of "the Indians" in the primary grades that turned many educators, at least temporarily, against any further consideration of American Indian studies, although they were quite ready to entertain anthropological studies in other areas. The ACSP American Indian studies should help to remedy this situation, at least in the secondary schools.

These comments are presented not as carping criticism but to indicate that as anthropology is used more extensively in secondary schools, new problems are going to arise. There will be demand for anthropological approaches and materials in areas in which anthropologists have not traditionally operated. These will by no means be the only problems. Much more extensive training in anthropology for teachers will be needed in the future, both in the colleges and in the inservice training institutes. There is no such thing as instant anthropology. The ACSP materials are designed to minimize the dangers of the use of anthropology uncritically and of its presentation as a body of facts to be memorized. Yet, even the most vital materials can turn to stone if educators do not know how to use them, or use them badly. At least this has often happened in the past when excellent new courses of study were introduced without sufficient preparation or training of teachers.

Anthropologists, however, have reason to be hopeful that the leadership they are providing in pedagogy as well as in content may stimulate far-reaching changes not only in what is taught but how it is taught. Compared to some of the present social studies projects, the ACSP is relatively modest. But the sensitivity which it has shown to the needs of students and teachers as well as to the requirements of the subject, its emphasis on teacher-scholar collaboration, and its realistic approach to change put the project solidly in the great tradition of creative curriculum revision.

Appendix

The following is a list of Conferences on Iroquois Research, with dates and places, and the Proceedings and Notices of each—if published. Also included are those papers which were first given at an Iroquois Conference and later published in substantially the same form. Not included is work reported on in the various Conferences but later published in quite different form.

First Conference on Iroquois Research, October 26 to 28, 1945, Red House, N.Y.

Proceedings of the First Conference on Iroquois Research, William N. Fenton, secretary. Administration Building, Allegany State Park, Red House, N.Y., n.d. 13 pp.

Second Conference on Iroquois Research, October 4 to 6, 1946, Red House, N.Y.

Proceedings of the Second Conference on Iroquois Research, William N. Fenton, secretary. Smithsonian Institution, Washington, D.C., n.d. 6 pp.

Conference on Iroquois Research, by William N. Fenton. American Anthropologist 49: 166-167. 1947.

Conference on Iroquois Research, by William N. Fenton. American Antiquity 12: 207. 1947.

Third Conference on Iroquois Research, October 24 to 26, 1947, Red House, N.Y.

Proceedings, Third Conference on Iroquois Research, William N. Fenton, ed. Peabody Museum, Salem, Mass., 1947. 26 pp.

Third Conference on Iroquois Research, by William N. Fenton. Science 106: 539-540. 1947.

Third Conference on Iroquois Research. American Anthropologist 50: 178. 1948.

The Third Conference on Iroquois Research. News Bulletin of the American Anthropological Association 1: 43. 1947.

Fourth Conference on Iroquois Research, October 8 to 10, 1948, Red House, N.Y.

Proceedings, Fourth Conference on Iroquois Research, William N. Fenton, ed. Smithsonian Institution, Washington, D.C., 1949. 34 pp.

Fourth Conference on Iroquois Research, by William N. Fenton. American Antiquity 14: 159-160. 1948.

The Fourth Conference on Iroquois Research, by William N. Fenton. Science 108: 611-612. 1948.

Fifth Conference on Iroquois Research, November 17, 1949, New York, N.Y. (at the 48th Annual Meeting of the American Anthropological Association).

Symposium on Local Diversity in Iroquois Culture, William N. Fenton, ed. Bureau of American Ethnology Bulletin 149. Washington, D.C., 1951.

Sixth Conference on Iroquois Research, October 5 to 7, 1950, Red House, N.Y.

William N. Fenton

1951 Iroquois Studies at the Mid-Century. Proceedings of the American Philosophical Society 95: 296-310.

John Witthoft

1951 Iroquois Archaeology at the Mid-Century. Proceedings of the American Philosophical Society 95: 311-321.

Seventh Conference on Iroquois Research, October 5 to 7, 1951, Red House, N.Y.

Seventh Conference on Iroquois Research, by William N. Fenton, Science 114: 588-589. 1951.

Seventh Conference on Iroquois Research, by William N. Fenton, American Antiquity 17: 292-294. 1952.

Eighth Conference on Iroquois Research, October 10 to 12, 1952, Red House, N.Y.

Eighth Conference on Iroquois Research, by Anthony F. C. Wallace. Science 117: 147-148. 1953.

Ninth Conference on Iroquois Research, October 14 to 16, 1955, Red House, N.Y.

Proceedings of the Ninth Conference on Iroquois Research. New York State Museum and Science Service, Albany, N.Y., n.d. 22 pp.

Ninth Conference on Iroquois Research. American Anthropological Association Bulletin 3 (4): 7-8. 1955.

Ninth Conference on Iroquois Research, by W. N. Fenton. New York State Archeological Association Bulletin 5: 2-3. 1955.

Ninth Conference on Iroquois Research, by William N. Fenton. American Antiquity 21: 335. 1956.

Iroquois Research, by W. N. Fenton. Science 123: 69. 1956.

Tenth Conference on Iroquois Research, October 26 to 28, 1956, Red House, N.Y.

Tenth Conference on Iroquois Research. New York State Museum and Science Service, Albany, N.Y., n.d. 4 pp.

Morris Freilich

1958 Cultural Persistence Among the Modern Iroquois. Anthropos 53: 473-483.

Eleventh Conference on Iroquois Research, October 11 to 13, 1957, Red House, N.Y.

R. William Dunning

1958 Iroquois Feast of the Dead: New Style. Anthropologica 6: 87-118.

David Landy

1958 Tuscarora Tribalism and National Identity. Ethnohistory 5: 250-284.

Anthony F. C. Wallace

1958 The Dekanawideh Myth Analyzed as the Record of a Revitalization Movement. Ethnohistory 5: 118-130.

Cherokee-Iroquois Symposium (at the 57th Annual Meeting of the American Anthropological Association), November 20, 1958, Washington, D.C.

Symposium on Cherokee and Iroquois Culture, William N. Fenton and John Gulick, eds. Bureau of American Ethnology Bulletin 180. Washington, D.C., 1961.

Twelfth Conference on Iroquois Research, October 16 to 18, 1959, Red House, N.Y.

Conference on Iroquois Research. American Anthropological Association Fellow Newsletter 1 (1-2): 4. 1960.

Thirteenth Conference on Iroquois Research, November 4-6, 1960, New Haven, Conn.

Fourteenth Conference on Iroquois Research, October 13 to 15, 1961, McMaster University, Hamilton, Ontario.

Conference on Iroquoian Studies. American Anthropological Association Fellow Newsletter 3 (1): 4. 1962.

Wallace L. Chafe

1964 Linguistic Evidence for the Relative Age of Iroquois Religious Practices. Southwestern Journal of Anthropology 20: 278-285.

Fifteenth Conference on Iroquois Research, October 12 to 14, 1962, Albany, N.Y. (joint meeting with the Tenth Annual Meeting of the American Indian Ethnohistoric Conference).

American Indian Ethnohistoric Conference, by WNF. American Anthropological Association Fellow Newsletter 4 (1): 3. 1963.

Harold Blau

1963 Dream Guessing: A Comparative Analysis. Ethnohistory 10: 233-249.

Milton W. Hamilton

1963 Sir William Johnson: Interpreter of the Iroquois. Ethnohistory 10: 270-286.

Sixteenth Conference on Iroquois Research, October 15 to 17, 1965, Glens Falls, N.Y.

Iroquois Research, by Elisabeth J. Tooker. Science 151: 712. 1966.

Conference on Iroquois Research. American Anthropological Association Fellow Newsletter 7 (3): 4-5. 1966.